

Natural England Nutrient Neutrality budget calculator for the Cleveland Coast SPA/Ramsar

This calculator was created by Ricardo Energy and Environment.

This calculator contains 6 worksheets with 9 tables in total.

This is the instructions cover sheet. It tells you how to use the calculator and gives an overview.

You can move between worksheets using the tabs at the bottom of the page.

If you use screen reading software, you can use 'Ctrl' + 'Page Down' keys to move between the worksheets.

If you use a keyboard only, to open any link in this form first select the cell with the link and then press the 'Enter' key, then press the letter 'O' twice to highlight 'Open Hyperlink' and press 'Enter' again.

If you use a keyboard only, access dropdown lists by clicking the dropdown arrow or pressing the letter 'O' to open the list and then pressing the letter of the item you want to select.

Table of contents

Topic of each table

Worksheet 1 Nutrient loading from additional wastewater

Worksheet 2 Nutrient loading from current land use

Worksheet 3 Nutrient loading from future land use

Worksheet 4 Nutrient loading from future land use after treatment through a sustainable urban drainage system

Worksheet 5 Nutrient budget calculations

General information about the calculator

This calculator helps you calculate the nutrient budget for a new residential development.

The nutrient budget for a site is calculated in 4 key stages with an additional optional stage in which features on the site can be entered. Each stage is implemented in worksheets 1-5 of this calculator.

Each worksheet is connected through a set of formulas which calculate the nutrient budget. At each of the four key stages require data inputs in order to calculate the nutrient budget.

The total nutrient budget is calculated automatically by adding the values from the 'Nutrients_from_additional_wastewater' and the 'Nutrients_from_future_land_use' minus the 'SuDS' (if applicable), and then subtracting the 'Nutrients_from_current_land_use', then adding a 20% precautionary buffer to the result. This is shown in the 'Final_nutrient_budgets' worksheet.

Before a nutrient budget can be completed using the methodology, certain site-specific details must be determined.

The guidance to this calculator and gives further information on the user inputs required.

The instructions for completing each stage of the nutrient budget methodology are shown in the 'Instructions' worksheet.

This calculator uses a set of lookup tables to find relevant values in a hidden spreadsheet titled 'Lookup Tables'.

It is advisable to retain a blank copy of this calculator and 'Save as' a new copy each time you use it to avoid using incorrect data inputs and to ease the calculation of new nutrient budgets.

The values already included have been chosen based on research to determine suitable inputs for Habitat Regulations Assessment (HRA) tests of beyond reasonable scientific doubt, in perpetuity (years) and in accordance with the precautionary principle.

If editing any values in this calculator, you must make sure there is a sufficient evidence base and that the inputs are selected in accordance with the precautionary principle.

Notes about the nutrients from wastewater worksheet

This sheet contains 2 tables.

The table under the heading 'Water infrastructure information' allows the user to enter key information about water infrastructure on the site. This table contains a mix of user specified values and values calculated depending on the user selected inputs.

The date of first occupancy is required because some wastewater treatment works (WwTW) may be upgraded, which will change the nutrient concentration permit values. This will be shown through 2 or 3 columns, comparing values from before and after the upgrade.

The amount of wastewater generated as a result of the population needs to be calculated using the following inputs:

- an average occupancy rate
- a per capita water usage figure
- the number of new developments

The default water usage value is preset in the worksheet. The default setting for the average occupancy rate is 2.4 people per dwelling or unit, which is the national occupancy rate. Only change this value if the development will be different to the national average. The number of new developments is not a default value.

If it is uncertain what WwTW the development will drain into, find this information from your site plan or local authority. If it is not feasible to connect to a WwTW and a septic tank or package treatment plant is used, the calculator will assume a WwTW.

If the total nitrogen (TN) final effluent concentrations (in mg/l) are specified by the manufacturer of a package treatment plant, select 'Package Treatment Plant user defined' and enter the manufacturer specified value in the cell.

The table under the heading 'Final calculation of nutrient load from wastewater' contains the calculated nutrient load from wastewater. This table may present up to 3 different values for the nutrient load, depending on the inputs.

If a nutrient permit is changing for the selected WwTW as of 01/01/2025, or 01/04/2030, the table will present the following parts:

- post-2030 wastewater nutrient loading
- pre-2030 wastewater nutrient loading
- pre-2025 wastewater nutrient loading

If applicable, 3 nutrient budgets will be calculated for the loading before and after the 2030 and 2025 changes. These will be presented in cells B18, B20 or B22.

Notes about the nutrients from current land use worksheet

This worksheet contains two tables that are used for calculating the annual nutrient load from the development site. Environmental information about the current site is required for the first to input the existing type(s) and area(s) of landcover present in order to generate nutrient load on the site. Only landcovers for the land that is being altered by the development should be e

The dropdown list of landcover types contains up to 8 agricultural landcover types and 8 differ full list of landcovers can be found in the calculator guidance or in the dropdown list. Find out development before completing this table. If there is a landcover within the development area similar landcover type.

The calculator guidance gives further information about the landcover types used.

Sources of information required for nutrients from current land use works

Description of the information:

The Operational Catchment within which the development is located can be found using the E Explorer

The drainage associated with the predominant soil type within the development site can be fo

The annual average rainfall that the development will receive can be found using the National at Leven Bridge' station

Whether the development is located within a Nitrate Vulnerable Zone (NVZ) can be found usi Vulnerable Zones - England' map

Notes about the nutrients from future land use worksheet

This worksheet contains one table which is used to calculate the annual nutrient load from ne development site. The type(s) and area(s) of landcover present on the new development is re associated with the current landcovers on the site.

The type(s) of landcover present on the new development site can be selected from a list of 8

- greenspace
- woodland
- shrub
- water
- residential urban land
- commercial or industrial urban land
- open urban land
- community food growing

Find out what landcover types will be within the development site before completing this table development site that is not in the list select the most similar landcover type.

The calculator guidance gives further information about the landcover types used in this calcu

Notes about the SuDS worksheet

This worksheet contains one table in which the user can enter key information about the use of land and reduce the nutrient loading from future land uses.

The table allows the user to enter the SuDS features or SuDS management trains that are proposed for future land uses. The land covers within the SuDS catchment area and the areas of these land uses entered into the 'Nutrients from future land use' worksheet can be selected. The nutrient loads are automatically calculated using the values from the worksheet 'Nutrients from future land use'.

The user must enter the percentage of flow that will be directed through the SuDS. Any numerical value can be entered for the percentage of flow.

Any numerical value less than or equal to 100% can be entered for the removal rates. However, the user should have evidence of these removal rates to the competent authority. As such, the most up to date SuDS guidance should be followed.

The user can enter any text for the SuDS feature to allow for variability in the names of the SuDS features planned.

Notes about the final nutrient budgets

This final stage automatically calculates the results from worksheets 1-5.

The value(s) shown represent the nutrient mitigation required in kilograms per year to achieve the target.

If there are 2 or 3 values due to changing permits, the calculator will show the total amount of nutrient mitigation required before and after the changing permit date.

Link to each worksheet

[Nutrients from wastewater](#)

[Nutrients from current land use](#)

[Nutrients from future land use](#)

[SuDS](#)

[Final nutrient budgets](#)

Nutrients from wastewater

This sheet contains 2 tables. The tables are separated by a heading, which describes the following information. **Note:** You will need to fill in cells B5 to B9 in the first table 'Water infrastructure information'. Cells C5 to C9 and C11 to C12 will state '0.00' unless the user inputs have been entered. Cells A11 to A12 and B11 to B12 will state 'Not applicable' depending on the inputs to cells B5 and B9. You may need to fill in cells C10 and C12 with the information you entered in cell B9. Cells C5 to C9 and C11 to cell C12 are intentionally blank. You do not need to fill in any cells in the second table 'Final calculation of nutrient load from wastewater'. Cells A19 to A22, cells B20 and B22 are automatically calculated and will state '0.00' unless the user inputs have been entered to the first table 'Water infrastructure information'. Cells A15 to A18, cells B15, cell B19 and cell B21 are automatically generated and may state '0.00' unless the user inputs to the first table 'Water infrastructure information'. Cell B15, cell B19 and cell B21 are automatically calculated and will state '0.00' unless the user inputs have been entered to the first table 'Water infrastructure information'.

How to fill in the table 'Water infrastructure information'

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 be based on local council evidence.

Cell B7: Enter the water usage. This value should be kept at 120 unless other efficiency measures are in place.

Cell B8: Enter the total number of dwellings or units that will be within the development site as per the development proposal.

Cell B9: 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 the nitrogen (TN) in cell C10. Otherwise the default values will be used in the calculation of the nutrient load from wastewater.

Nutrient permits may be changing for the WwTW you select, from 01/01/2025, or 01/04/2030. Between changing permit dates, multiple permit limits may be automatically generated in cells B18, B20 and B22. The values for the nutrient loading associated with wastewater will be presented in cell B18, B20 and B22.

Water infrastructure information

Description of required information

Date of first occupancy (dd/mm/yyyy):

Average occupancy rate (people/dwelling or people/unit):

Water usage (litres/person/day):

Development proposal (dwellings/units):

Wastewater treatment works:

Current wastewater treatment works N permit (mg TN/litre):

Not applicable

Not applicable

| |
|---|
| Final calculation of nutrient load from wastewater |
|---|

| |
|--|
| Description of values generated |
|--|

| |
|------------------------------------|
| Wastewater nutrient loading |
|------------------------------------|

| |
|---------------------------------|
| Additional population (people): |
|---------------------------------|

| |
|---|
| Wastewater by development (litres/day): |
|---|

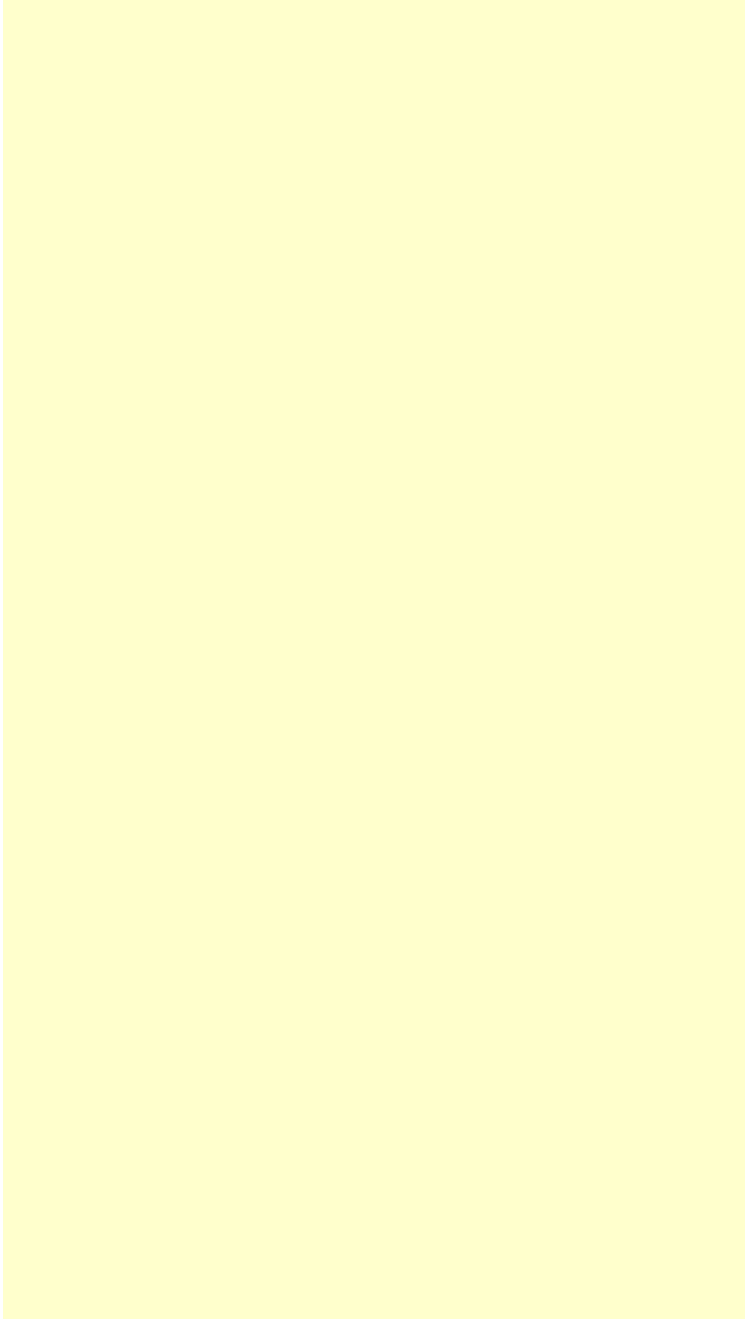
| |
|---------------------------------------|
| Annual wastewater TN load (kg TN/yr): |
|---------------------------------------|

| |
|-----------------------|
| Not applicable |
|-----------------------|

| |
|----------------|
| Not applicable |
|----------------|

| |
|-----------------------|
| Not applicable |
|-----------------------|

| |
|----------------|
| Not applicable |
|----------------|



| Data entry column - user inputs required | Additional data entry column - user inputs may be required |
|---|---|
| | |
| 2.40 | |
| 120 | |
| | |
| | |
| 0.00 | |
| Not applicable | |
| Not applicable | |

| |
|-------------------------|
| |
| Values generated |
| |
| 0.00 |
| 0.00 |
| 0.00 |
| |
| Not applicable |
| |
| Not applicable |

Nutrients from current land use

This sheet contains 2 tables. The tables are separated by a heading, which describes the following information.

Note: You will need to fill in cells B5 to B8 in the first table 'Current land use information'. You will also fill in cells A11 to A27, and B11 to B27 in the second table 'Current land uses'. Cells B28 and C28 are automatically calculated and will state '0.00' unless the user inputs have been entered. Cells C11 to C27 are automatically generated and will state 'Not applicable' depending on automatically generated data in cells C11 to C27. Row 28 is a Total Row. The Total Row states 'Totals:' in cell A28 and cell B28 automatically calculates the total sum of cells B11 to B27 in cell B28 and C11 to C27 in cell C28. Cell C29 is intentionally blank.

How to fill in the table 'Current land use information'

Cell B5: Choose the operational catchment the site is located within from the dropdown list.

Cell B6: Choose the soil drainage type associated with the predominant soil type within the development site from the dropdown list.

Cell B7: Choose the annual average rainfall the development will receive from the dropdown list. If the rainfall volume is not on the list, select the nearest value.

Cell B8: Choose whether the development is in a nitrate vulnerable zone (NVZ) from the dropdown list.

How to fill in the table 'Current land uses'

Cell A11-A27: Choose the existing (pre-development) land use type(s) from the dropdown list.

Cells B11-B27: Enter the area in hectares of each land use type.

The nutrient load from current land uses is shown in cells C11-C27 total nitrogen (TN).

The total nutrient load from current land uses is shown in cell C28 for TN.

Current land use information

Description of required information

Operational catchment:

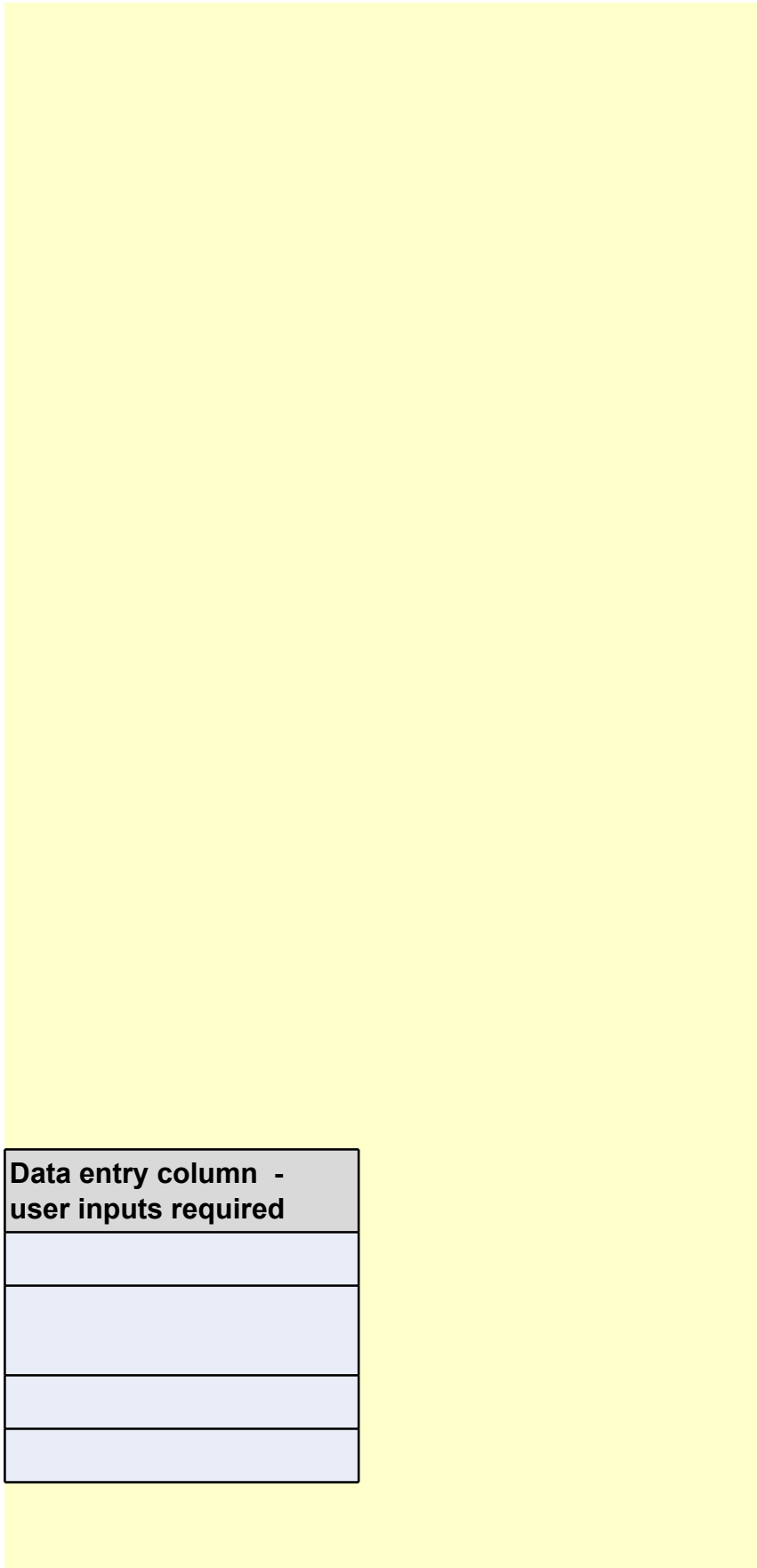
Soil drainage type:

Annual average rainfall (mm):

Within nitrate vulnerable zone (NVZ):

Current land uses

Existing land use type(s) - user inputs required



| |
|---|
| Data entry column - user inputs required |
| |
| |
| |
| |

| | |
|---|---|
| Area (ha) - user inputs required | Annual nitrogen nutrient export (kg TN/yr) |
|---|---|

| | |
|-------------|-------------|
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| | 0.00 |
| 0.00 | 0.00 |

Notes on data

Nutrients from future land use

This sheet contains one table.

Note: You will need to fill in cells A5 to A21 and B5 to B21. Cells B22 and C5 to C22 are automatically generated calculations and will state '0.00' unless the user inputs have been entered. Row 22 is a Total Row. The Total Row states 'Totals:' in cell A22 and automatically calculates the total sum of cells B5 to B21 in cell B22 and C5 to C21 in cell C22.

How to fill in the table 'Future land uses'

Cells A5-A21: Choose the future (post-development) land use type(s) of landcover present on the new site from the dropdown list

Cells B5-B21: Enter the area in hectares of each land use type.

The nutrient load from future land uses is shown in cells C5 to C21 for total nitrogen (TN).

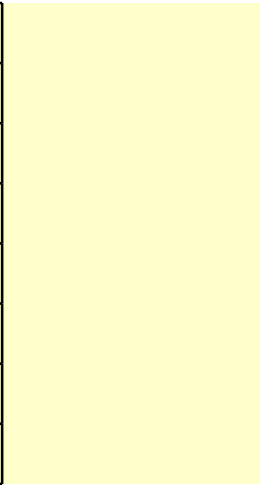
The total nutrient load from future land uses is shown in cell C22 for TN.

Future land uses

| New land use type(s) - user inputs required | Area (ha) - user inputs required |
|---|----------------------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| | |
|----------------|-------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Totals: | 0.00 |

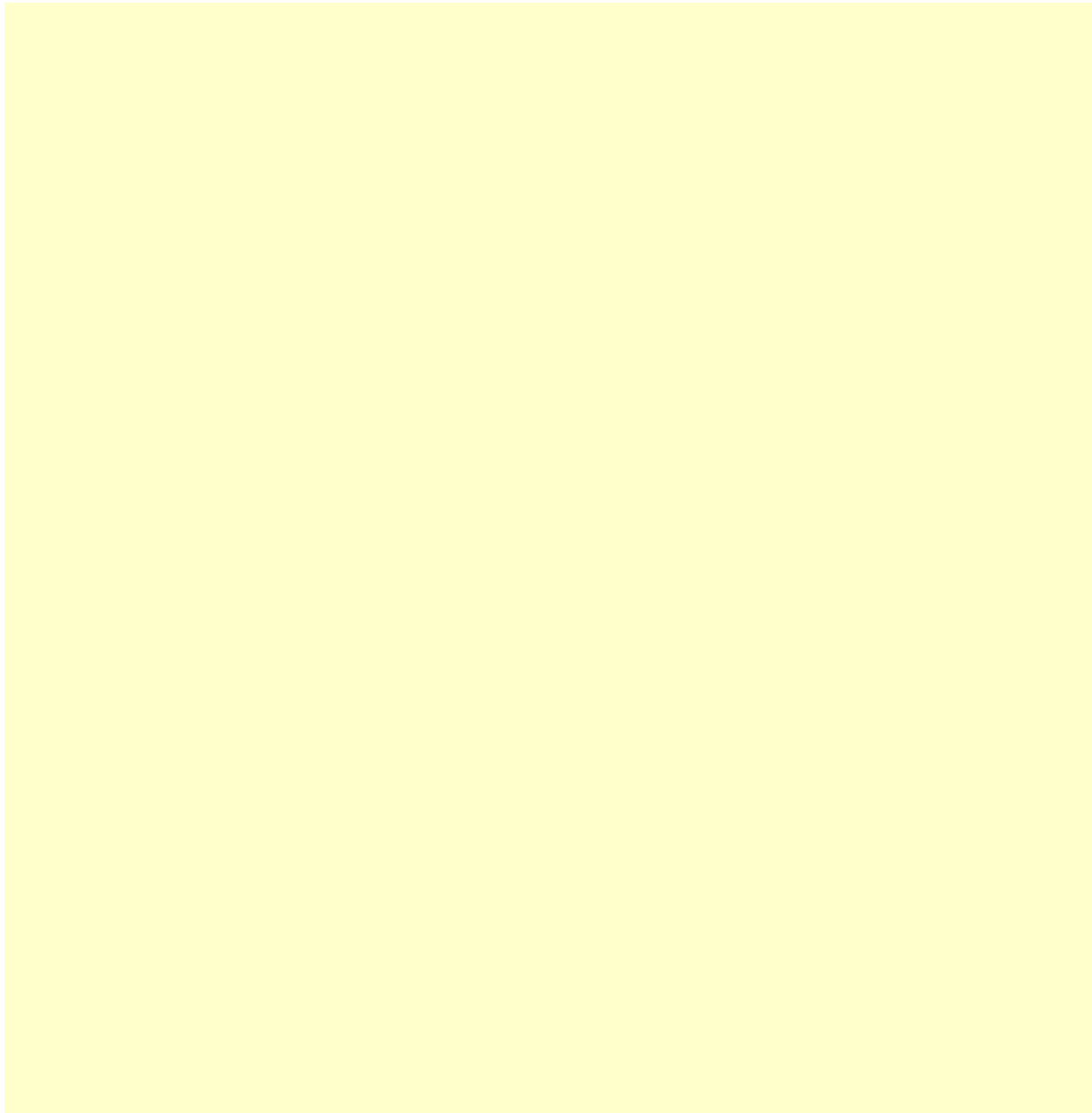
| |
|-------------|
| 0.00 |
| 0.00 |
| 0.00 |
| 0.00 |
| 0.00 |
| 0.00 |
| 0.00 |
| 0.00 |





| SuDS catchment area (ha) - user inputs required | Percentage of flow entering the SuDS (%) - user inputs required | Annual nitrogen inputs to SuDS feature(s) (kg TN/yr) |
|--|--|---|
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |

| | | |
|-------------|--|-------------|
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| 0.00 | | 0.00 |



| Name of SuDS feature(s) - user inputs required | TN removal rate for features (%) - user inputs required |
|---|--|
| | |
| | |
| | |
| | |
| | |



| Annual nitrogen load removed by SuDS (kg TN/yr) | Notes on data |
|--|----------------------|
| 0.00 | Not applicable |
| 0.00 | Not applicable |
| 0.00 | Not applicable |
| 0.00 | Not applicable |
| 0.00 | 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 cells 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

Wastewater TN load (kg TN/year):

Net land use TN change (kg TN/year):

TN budget:

TN budget + 20% buffer:

Annual nutrient budget

The total annual nitrogen load to mitigate is (kg TN/yr):

Not applicable

Not applicable

Not applicable

Not applicable

| |
|-------------------------|
| Values generated |
| 0.00 |
| 0.00 |
| 0.00 |
| 0.00 |
| |
| 0.00 |
| |
| Not applicable |
| |
| Not applicable |

| Nutrients from wastewater | |
|--|--|
| This sheet contains nine tables. A blank row separates the end of each table from the header for the next table. | |
| Table 1: Stage 1 WwTW lookup | |
| Discharge Site Name | Nitrogen, Total as N (mg/l) |
| Aldbrough STW | 27 |
| Archdeacon Newton STW | 27 |
| Aycliffe STW Works | 27 |
| Barnard Castle STW | 27 |
| Barningham STW | 27 |
| Barton STW | 27 |
| Beacon Hill No.1 STW | 27 |
| Beacon Hill No.2 STW | 27 |
| Beacon Hill No.3 STW | 27 |
| Billingham STW | 0 |
| Bishop Middleham Sewage Works | 27 |
| Bishopton Sewage Works | 27 |
| Bolam STW | 27 |
| Boldron STW | 27 |
| Bowes STW | 27 |
| Bradbury STW | 27 |
| Bran Sands Treatment Works | 27 |
| Caldwell STW | 27 |
| Carlton & Redmarshall STW | 27 |
| Carlton In Cleveland STW | 27 |
| Chilton Lane STW | 27 |
| Cotherstone STW | 27 |
| Dent Bank STW | 27 |
| Denton STW | 27 |
| Eggleston STW | 27 |
| Elton STW | 27 |
| Eppleby Sewage Disposal Works | 27 |
| Eryholme STW | 27 |
| Fighting Cocks STW | 27 |
| Fishburn STW | 27 |
| Gainford STW | 27 |
| Gateley Moor Reservoir STW | 27 |
| Graythorp STW | 27 |
| Great Ayton STW | 27 |
| Great Broughton STW | 27 |

| | |
|--------------------------------------|------|
| Great Busby STW | 27 |
| Great Stainton STW | 27 |
| Greatham STW | 27 |
| Gribdale Terrace STW | 27 |
| Hornby STW | 27 |
| Houghton Le Side STW | 27 |
| Hutton Magna New STW | 27 |
| Hutton Rudby STW | 27 |
| Ingleby Greenhow STW | 27 |
| Kildale-New-Row STW | 27 |
| Kildale STW | 27 |
| Killerby STW | 27 |
| Kirklevington STW | 27 |
| Little Kildale STW | 27 |
| Little Stainton STW | 27 |
| Long Newton STW | 27 |
| Low Worsall STW | 27 |
| Manfield STW | 27 |
| Melsonby STW | 27 |
| Mickleton STW | 27 |
| Middleton-In-Teesdale STW | 27 |
| Middleton Beach Outfall | 27 |
| Mordon STW | 27 |
| Newbiggin STW | 27 |
| Newby STW | 27 |
| Newton-Under-Roseberry STW | 27 |
| Old Cleatlam STW | 27 |
| Ovington STW | 27 |
| Picton STW | 27 |
| Romaldkirk Sewage Disposal Works | 27 |
| Rushyford Well Cottages STW | 27 |
| Sadberge STW | 27 |
| Seaton Carew STW | 0 |
| Sedgefield STW | 27 |
| South Cleatlam STW | 27 |
| Staindrop STW | 27 |
| Stainton STW | 27 |
| Stokesley STW | 27 |
| Stressholme STW | 27 |
| Summerhouse STW | 27 |
| Swainby STW | 27 |
| Teesside Airport STW | 27 |
| Trimdon Village STW | 27 |
| Walworth Gate STW | 27 |
| Whorlton STW | 27 |
| Windlestone STW | 27 |
| Winston STW | 27 |
| Package Treatment Plant default | 72.9 |
| Septic Tank default | 96.3 |
| Package Treatment Plant user defined | |

| | |
|--------------------------|--|
| Septic Tank user defined | |
|--------------------------|--|

| Table 2: Stage 2 and 3 Landcover lookup | |
|--|-----------------------------|
| Catchment | Farmscoper Farm Term |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | Cereals |
| Tees Lower and Estuary | General |
| Tees Lower and Estuary | General |
| Tees Lower and Estuary | General |
| Tees Lower and Estuary | General |
| Tees Lower and Estuary | Horticulture |
| Tees Lower and Estuary | Horticulture |
| Tees Lower and Estuary | Horticulture |
| Tees Lower and Estuary | Pig |
| Tees Lower and Estuary | Pig |
| Tees Lower and Estuary | Pig |
| Tees Lower and Estuary | Pig |
| Tees Lower and Estuary | Poultry |
| Tees Lower and Estuary | Poultry |
| Tees Lower and Estuary | Poultry |
| Tees Lower and Estuary | Dairy |
| Tees Lower and Estuary | Dairy |
| Tees Lower and Estuary | Dairy |
| Tees Lower and Estuary | LFA |
| Tees Lower and Estuary | LFA |
| Tees Lower and Estuary | LFA |
| Tees Lower and Estuary | Lowland |
| Tees Lower and Estuary | Lowland |
| Tees Lower and Estuary | Lowland |
| Tees Lower and Estuary | Lowland |
| Tees Lower and Estuary | Lowland |
| Tees Lower and Estuary | Lowland |
| Tees Lower and Estuary | Mixed |
| Tees Lower and Estuary | Mixed |
| Tees Lower and Estuary | Mixed |
| Tees Lower and Estuary | Mixed |
| Tees Lower and Estuary | Mixed |
| Tees Middle | Cereals |

| | |
|-------------|---------|
| Tees Middle | Lowland |
| Tees Middle | Lowland |
| Tees Middle | Lowland |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Middle | Mixed |
| Tees Upper | General |
| Tees Upper | General |
| Tees Upper | General |
| Tees Upper | General |
| Tees Upper | General |
| Tees Upper | General |
| Tees Upper | Poultry |
| Tees Upper | Poultry |
| Tees Upper | Poultry |
| Tees Upper | LFA |
| Tees Upper | LFA |
| Tees Upper | LFA |
| Tees Upper | LFA |
| Tees Upper | LFA |
| Tees Upper | LFA |
| Tees Upper | LFA |
| Tees Upper | LFA |
| Tees Upper | LFA |
| Tees Upper | Lowland |
| Tees Upper | Lowland |
| Tees Upper | Lowland |
| Tees Upper | Lowland |
| Tees Upper | Lowland |
| Tees Upper | Mixed |
| Tees Upper | Mixed |
| Tees Upper | Mixed |
| Tees Upper | Mixed |
| Skerne | Cereals |
| Skerne | Cereals |
| Skerne | Cereals |
| Skerne | Cereals |
| Skerne | Cereals |
| Skerne | Cereals |
| Skerne | General |
| Skerne | General |
| Skerne | General |
| Skerne | Poultry |
| Skerne | Poultry |

| | |
|-------------------|---------|
| Skerne | Poultry |
| Skerne | Poultry |
| Skerne | Poultry |
| Skerne | Poultry |
| Skerne | Dairy |
| Skerne | Dairy |
| Skerne | Lowland |
| Skerne | Lowland |
| Skerne | Lowland |
| Skerne | Lowland |
| Skerne | Lowland |
| Skerne | Mixed |
| Skerne | Mixed |
| Skerne | Mixed |
| Skerne | Mixed |
| Skerne | Mixed |
| Saltburn Coast | Cereals |
| Saltburn Coast | Cereals |
| Saltburn Coast | Cereals |
| Saltburn Coast | Cereals |
| Saltburn Coast | Cereals |
| Saltburn Coast | General |
| Saltburn Coast | General |
| Saltburn Coast | General |
| Saltburn Coast | Pig |
| Saltburn Coast | Pig |
| Saltburn Coast | Pig |
| Saltburn Coast | Dairy |
| Saltburn Coast | Dairy |
| Saltburn Coast | Dairy |
| Saltburn Coast | LFA |
| Saltburn Coast | LFA |
| Saltburn Coast | LFA |
| Saltburn Coast | LFA |
| Saltburn Coast | Lowland |
| Saltburn Coast | Lowland |
| Saltburn Coast | Lowland |
| Saltburn Coast | Lowland |
| Saltburn Coast | Mixed |
| Saltburn Coast | Mixed |
| Saltburn Coast | Mixed |
| Saltburn Coast | Mixed |
| Leven Northumbria | Cereals |
| Leven Northumbria | Cereals |
| Leven Northumbria | Cereals |
| Leven Northumbria | Cereals |
| Leven Northumbria | Cereals |
| Leven Northumbria | Cereals |
| Leven Northumbria | General |
| Leven Northumbria | General |

| | |
|-------------------|---------|
| Leven Northumbria | General |
| Leven Northumbria | General |
| Leven Northumbria | General |
| Leven Northumbria | General |
| Leven Northumbria | Pig |
| Leven Northumbria | Pig |
| Leven Northumbria | Pig |
| Leven Northumbria | Pig |
| Leven Northumbria | Poultry |
| Leven Northumbria | Poultry |
| Leven Northumbria | Dairy |
| Leven Northumbria | Dairy |
| Leven Northumbria | Dairy |
| Leven Northumbria | Dairy |
| Leven Northumbria | Dairy |
| Leven Northumbria | Dairy |
| Leven Northumbria | LFA |
| Leven Northumbria | LFA |
| Leven Northumbria | LFA |
| Leven Northumbria | LFA |
| Leven Northumbria | LFA |
| Leven Northumbria | LFA |
| Leven Northumbria | Lowland |
| Leven Northumbria | Lowland |
| Leven Northumbria | Lowland |
| Leven Northumbria | Lowland |
| Leven Northumbria | Lowland |
| Leven Northumbria | Mixed |
| Leven Northumbria | Mixed |
| Leven Northumbria | Mixed |
| Leven Northumbria | Mixed |
| Leven Northumbria | Mixed |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | Cereals |
| 3093_Tees | General |
| 3093_Tees | General |
| 3093_Tees | General |

| | |
|---|---|
| - | - |
| - | - |
| - | - |
| - | - |
| - | - |

| Table 3: Stage 2 and 3 Rainfall / Urban Lookup | |
|---|------------|
| Rainfall band | Mid |
| 508 - 525 | 516.50 |
| 525.1 - 550 | 537.55 |
| 550.1 - 575 | 562.55 |
| 575.1 - 600 | 587.55 |
| 600.1 - 625 | 612.55 |
| 625.1 - 650 | 637.55 |
| 650.1 - 675 | 662.55 |
| 675.1 - 700 | 687.55 |
| 700.1 - 750 | 725.05 |
| 750.1 - 800 | 775.05 |
| 800.1 - 850 | 825.05 |
| 850.1 - 900 | 875.05 |
| 900.1 - 950 | 925.05 |
| 950.1 - 1,000 | 975.05 |
| 1,000.1 - 1,100 | 1050.05 |
| 1,100.1 - 1,200 | 1150.05 |
| 1,200.1 - 1,400 | 1300.05 |
| 1,400.1 - 1,600 | 1500.05 |
| 1,600.1 - 2,000 | 1800.05 |
| 2,000.1 - 2,400 | 2200.05 |
| 2,400.1 - 3,000 | 2700.05 |
| 3,000.1 - 4,000 | 3500.05 |
| 4,000.1 - 5,500 | 4750.05 |

| Table 4: Stage 2 and 3 Catchment Lookup | |
|--|------------------------------|
| Operational Catchment | Farmscoper equivalent |
| Tees Lower and Estuary | Tees Lower and |
| Tees Middle | Tees Middle |
| Tees Upper | Tees Upper |
| Skerne | Skerne |
| Leven Northumbria | Leven Northumbria |
| Saltburn Coast | Saltburn Coast |

| Table 5: Stage 2 and 3 Soil Drainage Lookup | |
|--|------------------------|
| Soilscape drainage term | Farmscoper term |
| Freely draining | FreeDrain |
| Slightly impeded drainage | DrainedAr |
| Impeded drainage | DrainedArGr |
| Variable | DrainedAr |
| Surface Wetness | DrainedAr |
| Naturally wet | DrainedAr |

| Table 6: Stage 2 and 3 NVZ Lookup | |
|--|------------------------------|
| NVZ | Farmscoper equivalent |
| Yes | TRUE |
| No | FALSE |

| Table 7: Stage 2 and 3 Landcovers | |
|--|--|
| All Possible Landcover Types | |
| Cereals | |
| General | |
| Horticulture | |
| Pig | |
| Poultry | |
| Dairy | |
| LFA | |
| Lowland | |
| Mixed | |
| Greenspace | |
| Woodland | |
| Shrub | |
| Water | |
| Residential urban land | |
| Commercial/industrial urban land | |
| Open urban land | |
| Community food growing | |

| Table 8: Stage 2 and 3 Landcover lookup | |
|--|--|
|--|--|

| Nitrogen, Total as N (mg/l), permit post 2025 | Nitrogen, Total as N (mg/l), permit post 2030 |
|--|--|
| 27 | 27 |
| 27 | 27 |
| 27 | 10 |
| 27 | 10 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 0 | 0 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 10 |
| 27 | 27 |
| 27 | 10 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 27 |
| 27 | 10 |
| 27 | 27 |
| 27 | 27 |
| 27 | 10 |
| 27 | 27 |

| | |
|--|--|
| | |
|--|--|

| NVZ | Climate | Farmscoper Soil Drainage Term |
|------------|----------------|--------------------------------------|
| FALSE | Under600 | DrainedAr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedArGr |
| FALSE | Under600 | DrainedAr |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |

| | | |
|-------|------------|-------------|
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| TRUE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |

| | | |
|-------|------------|-------------|
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 1200to1500 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 1200to1500 | DrainedAr |
| FALSE | 1200to1500 | DrainedArGr |
| FALSE | Over1500 | FreeDrain |
| FALSE | 700to900 | FreeDrain |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 1200to1500 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |

| | | |
|-------|-----------|-------------|
| TRUE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedArGr |
| TRUE | 700to900 | DrainedAr |
| TRUE | 700to900 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| TRUE | 700to900 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| TRUE | 600to700 | FreeDrain |
| TRUE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedArGr |
| TRUE | 700to900 | FreeDrain |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |

| | | |
|-------|-----------|-------------|
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedAr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | Under600 | DrainedAr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| TRUE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |

| | | |
|-------|------------|-------------|
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedAr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 1200to1500 | DrainedArGr |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |

| | | |
|-------|------------|------------------------|
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedAr |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 1200to1500 | DrainedAr |
| FALSE | 1200to1500 | DrainedArGr |
| FALSE | Over1500 | FreeDrain |
| FALSE | Under600 | DrainedAr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| FALSE | 1200to1500 | FreeDrain |
| FALSE | 1200to1500 | DrainedArGr |
| FALSE | 600to700 | FreeDrain |
| TRUE | 600to700 | FreeDrain |
| FALSE | 600to700 | DrainedAr |
| TRUE | 600to700 | DrainedAr |
| FALSE | 600to700 | DrainedArGr |
| TRUE | 600to700 | DrainedArGr |
| FALSE | 700to900 | FreeDrain |
| TRUE | 700to900 | FreeDrain |
| FALSE | 700to900 | DrainedAr |
| TRUE | 700to900 | DrainedAr |
| FALSE | 700to900 | DrainedArGr |
| TRUE | 700to900 | DrainedArGr |
| FALSE | 900to1200 | FreeDrain |
| FALSE | 900to1200 | DrainedArGr |
| - | - | Greenspace |
| - | - | Community food growing |
| - | - | Woodland |

| | | |
|---|---|----------------------------------|
| - | - | Shrub |
| - | - | Water |
| - | - | Residential urban land |
| - | - | Commercial/industrial urban land |
| - | - | Open urban land |

| Farmscoper Equivalent | P Urban Runoff Coefficient | N Urban Runoff Coefficient (kg/ha/yr) |
|------------------------------|-----------------------------------|--|
| Under600 | 47.37 | 63.95 |
| Under600 | 47.61 | 64.19 |
| Under600 | 47.86 | 64.44 |
| Under600 | 48.09 | 64.67 |
| 600to700 | 48.29 | 64.87 |
| 600to700 | 48.45 | 65.03 |
| 600to700 | 48.59 | 65.17 |
| 600to700 | 48.69 | 65.27 |
| 700to900 | 48.79 | 65.37 |
| 700to900 | 48.82 | 65.40 |
| 700to900 | 48.82 | 65.40 |
| 700to900 | 48.82 | 65.40 |
| 900to1200 | 48.82 | 65.40 |
| 900to1200 | 48.82 | 65.40 |
| 900to1200 | 48.82 | 65.40 |
| 900to1200 | 48.82 | 65.40 |
| 1200to1500 | 48.82 | 65.40 |
| 1200to1500 | 48.82 | 65.40 |
| Over1500 | 48.82 | 65.40 |
| Over1500 | 48.82 | 65.40 |
| Over1500 | 48.82 | 65.40 |
| Over1500 | 48.82 | 65.40 |
| Over1500 | 48.82 | 65.40 |

Estuary

| |
|----------------------------------|
| |
| Definition |
| Free Draining |
| Drained for arable |
| Drained for arable and grassland |
| Drained for arable |
| Drained for arable |
| Drained for arable |

| Lookup | Column3 | Nitrogen export coefficient |
|--|---------|-----------------------------|
| Tees Lower and Estuary Cereals FALSE Under600 DrainedAr | | 16.26 |
| Tees Lower and Estuary Cereals FALSE 600to700 FreeDrain | | 25.40 |
| Tees Lower and Estuary Cereals TRUE 600to700 FreeDrain | | 25.32 |
| Tees Lower and Estuary Cereals FALSE 600to700 DrainedAr | | 18.89 |
| Tees Lower and Estuary Cereals TRUE 600to700 DrainedAr | | 18.83 |
| Tees Lower and Estuary Cereals FALSE 600to700 DrainedArGr | | 20.35 |
| Tees Lower and Estuary Cereals TRUE 600to700 DrainedArGr | | 20.29 |
| Tees Lower and Estuary Cereals FALSE 700to900 DrainedArGr | | 22.50 |
| Tees Lower and Estuary General FALSE 600to700 FreeDrain | | 19.75 |
| Tees Lower and Estuary General TRUE 600to700 DrainedAr | | 14.02 |
| Tees Lower and Estuary General FALSE 600to700 DrainedArGr | | 14.70 |
| Tees Lower and Estuary General TRUE 600to700 DrainedArGr | | 14.66 |
| Tees Lower and Estuary Horticulture TRUE 600to700 FreeDrain | | 21.77 |
| Tees Lower and Estuary Horticulture FALSE 600to700 DrainedArGr | | 15.64 |
| Tees Lower and Estuary Horticulture TRUE 600to700 DrainedArGr | | 15.60 |
| Tees Lower and Estuary Pig FALSE 600to700 DrainedAr | | 79.87 |
| Tees Lower and Estuary Pig TRUE 600to700 DrainedAr | | 76.80 |
| Tees Lower and Estuary Pig FALSE 600to700 DrainedArGr | | 75.40 |
| Tees Lower and Estuary Pig TRUE 600to700 DrainedArGr | | 70.77 |
| Tees Lower and Estuary Poultry TRUE 600to700 DrainedAr | | 143.67 |
| Tees Lower and Estuary Poultry FALSE 600to700 DrainedArGr | | 139.90 |
| Tees Lower and Estuary Poultry TRUE 600to700 DrainedArGr | | 131.06 |
| Tees Lower and Estuary Dairy FALSE 600to700 DrainedAr | | 25.30 |
| Tees Lower and Estuary Dairy FALSE 600to700 DrainedArGr | | 19.24 |
| Tees Lower and Estuary Dairy TRUE 600to700 DrainedArGr | | 18.83 |
| Tees Lower and Estuary LFA FALSE 600to700 DrainedArGr | | 7.75 |
| Tees Lower and Estuary LFA FALSE 700to900 FreeDrain | | 16.60 |
| Tees Lower and Estuary LFA FALSE 700to900 DrainedArGr | | 9.82 |
| Tees Lower and Estuary Lowland FALSE Under600 DrainedAr | | 8.41 |
| Tees Lower and Estuary Lowland TRUE 600to700 FreeDrain | | 17.06 |
| Tees Lower and Estuary Lowland FALSE 600to700 DrainedAr | | 11.60 |
| Tees Lower and Estuary Lowland TRUE 600to700 DrainedAr | | 11.52 |
| Tees Lower and Estuary Lowland FALSE 600to700 DrainedArGr | | 10.41 |
| Tees Lower and Estuary Lowland TRUE 600to700 DrainedArGr | | 10.38 |
| Tees Lower and Estuary Mixed FALSE 600to700 FreeDrain | | 31.03 |
| Tees Lower and Estuary Mixed TRUE 600to700 DrainedAr | | 21.50 |
| Tees Lower and Estuary Mixed FALSE 600to700 DrainedArGr | | 21.47 |
| Tees Lower and Estuary Mixed TRUE 600to700 DrainedArGr | | 21.07 |
| Tees Lower and Estuary Mixed FALSE 700to900 DrainedArGr | | 24.29 |
| Tees Middle Cereals FALSE 600to700 FreeDrain | | 25.70 |

| | |
|---|-------|
| Tees Middle Cereals TRUE 600to700 FreeDrain | 25.61 |
| Tees Middle Cereals FALSE 600to700 DrainedAr | 19.10 |
| Tees Middle Cereals FALSE 600to700 DrainedArGr | 20.59 |
| Tees Middle Cereals TRUE 600to700 DrainedArGr | 20.53 |
| Tees Middle Cereals FALSE 700to900 FreeDrain | 30.94 |
| Tees Middle Cereals TRUE 700to900 FreeDrain | 30.83 |
| Tees Middle Cereals FALSE 700to900 DrainedAr | 24.05 |
| Tees Middle Cereals TRUE 700to900 DrainedAr | 23.98 |
| Tees Middle Cereals FALSE 700to900 DrainedArGr | 22.78 |
| Tees Middle Cereals TRUE 700to900 DrainedArGr | 22.72 |
| Tees Middle Cereals FALSE 900to1200 FreeDrain | 32.83 |
| Tees Middle General FALSE 600to700 FreeDrain | 21.83 |
| Tees Middle General TRUE 600to700 FreeDrain | 21.77 |
| Tees Middle General FALSE 600to700 DrainedArGr | 16.01 |
| Tees Middle General TRUE 600to700 DrainedArGr | 15.97 |
| Tees Middle General FALSE 700to900 FreeDrain | 26.15 |
| Tees Middle General TRUE 700to900 FreeDrain | 26.07 |
| Tees Middle General FALSE 700to900 DrainedAr | 19.35 |
| Tees Middle General FALSE 700to900 DrainedArGr | 17.39 |
| Tees Middle General TRUE 700to900 DrainedArGr | 17.35 |
| Tees Middle General FALSE 900to1200 FreeDrain | 27.71 |
| Tees Middle General FALSE 900to1200 DrainedArGr | 19.76 |
| Tees Middle Pig FALSE 600to700 FreeDrain | 79.18 |
| Tees Middle Pig FALSE 600to700 DrainedArGr | 50.07 |
| Tees Middle Pig TRUE 600to700 DrainedArGr | 47.27 |
| Tees Middle Pig FALSE 700to900 FreeDrain | 93.73 |
| Tees Middle Pig TRUE 700to900 FreeDrain | 94.26 |
| Tees Middle Pig FALSE 700to900 DrainedArGr | 55.09 |
| Tees Middle Dairy TRUE 600to700 DrainedArGr | 14.72 |
| Tees Middle Dairy FALSE 700to900 FreeDrain | 40.47 |
| Tees Middle Dairy TRUE 700to900 FreeDrain | 40.07 |
| Tees Middle Dairy FALSE 700to900 DrainedArGr | 18.55 |
| Tees Middle LFA FALSE 600to700 FreeDrain | 8.40 |
| Tees Middle LFA FALSE 600to700 DrainedArGr | 6.16 |
| Tees Middle LFA TRUE 600to700 DrainedArGr | 6.15 |
| Tees Middle LFA FALSE 700to900 FreeDrain | 12.06 |
| Tees Middle LFA TRUE 700to900 FreeDrain | 12.01 |
| Tees Middle LFA FALSE 700to900 DrainedAr | 9.64 |
| Tees Middle LFA FALSE 700to900 DrainedArGr | 7.87 |
| Tees Middle LFA FALSE 900to1200 FreeDrain | 12.91 |
| Tees Middle LFA FALSE 900to1200 DrainedArGr | 10.28 |
| Tees Middle LFA FALSE 1200to1500 FreeDrain | 12.55 |
| Tees Middle Lowland FALSE 600to700 FreeDrain | 12.82 |
| Tees Middle Lowland TRUE 600to700 FreeDrain | 12.74 |
| Tees Middle Lowland FALSE 600to700 DrainedArGr | 8.59 |
| Tees Middle Lowland TRUE 600to700 DrainedArGr | 8.58 |
| Tees Middle Lowland FALSE 700to900 FreeDrain | 18.28 |
| Tees Middle Lowland TRUE 700to900 FreeDrain | 18.18 |
| Tees Middle Lowland FALSE 700to900 DrainedAr | 14.29 |
| Tees Middle Lowland FALSE 700to900 DrainedArGr | 10.69 |

| | |
|---|-------|
| Tees Middle Lowland TRUE 700to900 DrainedArGr | 10.67 |
| Tees Middle Lowland FALSE 900to1200 FreeDrain | 19.50 |
| Tees Middle Lowland FALSE 900to1200 DrainedArGr | 14.19 |
| Tees Middle Mixed FALSE 600to700 FreeDrain | 27.51 |
| Tees Middle Mixed TRUE 600to700 FreeDrain | 27.45 |
| Tees Middle Mixed FALSE 600to700 DrainedArGr | 19.49 |
| Tees Middle Mixed TRUE 600to700 DrainedArGr | 19.15 |
| Tees Middle Mixed FALSE 700to900 FreeDrain | 34.63 |
| Tees Middle Mixed TRUE 700to900 FreeDrain | 34.55 |
| Tees Middle Mixed FALSE 700to900 DrainedAr | 26.31 |
| Tees Middle Mixed FALSE 700to900 DrainedArGr | 22.07 |
| Tees Middle Mixed TRUE 700to900 DrainedArGr | 21.64 |
| Tees Middle Mixed FALSE 900to1200 DrainedArGr | 26.14 |
| Tees Upper General FALSE 700to900 FreeDrain | 12.83 |
| Tees Upper General FALSE 700to900 DrainedArGr | 7.56 |
| Tees Upper General FALSE 900to1200 FreeDrain | 13.49 |
| Tees Upper General FALSE 900to1200 DrainedArGr | 8.90 |
| Tees Upper General FALSE 1200to1500 FreeDrain | 13.49 |
| Tees Upper General FALSE 1200to1500 DrainedArGr | 10.63 |
| Tees Upper Poultry FALSE 900to1200 FreeDrain | 48.41 |
| Tees Upper Poultry FALSE 900to1200 DrainedArGr | 27.17 |
| Tees Upper Poultry FALSE 1200to1500 FreeDrain | 48.70 |
| Tees Upper LFA FALSE 700to900 FreeDrain | 8.53 |
| Tees Upper LFA FALSE 700to900 DrainedArGr | 5.77 |
| Tees Upper LFA FALSE 900to1200 FreeDrain | 9.06 |
| Tees Upper LFA FALSE 900to1200 DrainedArGr | 7.42 |
| Tees Upper LFA FALSE 1200to1500 FreeDrain | 8.81 |
| Tees Upper LFA FALSE 1200to1500 DrainedAr | 9.46 |
| Tees Upper LFA FALSE 1200to1500 DrainedArGr | 8.95 |
| Tees Upper LFA FALSE Over1500 FreeDrain | 8.19 |
| Tees Upper Lowland FALSE 700to900 FreeDrain | 12.38 |
| Tees Upper Lowland FALSE 900to1200 FreeDrain | 13.17 |
| Tees Upper Lowland FALSE 900to1200 DrainedArGr | 9.71 |
| Tees Upper Lowland FALSE 1200to1500 FreeDrain | 12.77 |
| Tees Upper Lowland FALSE 1200to1500 DrainedArGr | 12.12 |
| Tees Upper Mixed FALSE 700to900 FreeDrain | 36.37 |
| Tees Upper Mixed FALSE 700to900 DrainedArGr | 17.49 |
| Tees Upper Mixed FALSE 900to1200 FreeDrain | 38.28 |
| Tees Upper Mixed FALSE 900to1200 DrainedArGr | 21.72 |
| Skerne Cereals FALSE 600to700 FreeDrain | 26.07 |
| Skerne Cereals TRUE 600to700 FreeDrain | 25.99 |
| Skerne Cereals TRUE 600to700 DrainedAr | 19.24 |
| Skerne Cereals FALSE 600to700 DrainedArGr | 20.77 |
| Skerne Cereals TRUE 600to700 DrainedArGr | 20.71 |
| Skerne Cereals TRUE 700to900 DrainedArGr | 22.85 |
| Skerne General TRUE 600to700 FreeDrain | 22.67 |
| Skerne General FALSE 600to700 DrainedArGr | 16.88 |
| Skerne General TRUE 600to700 DrainedArGr | 16.84 |
| Skerne Poultry FALSE 600to700 FreeDrain | 58.21 |
| Skerne Poultry TRUE 600to700 FreeDrain | 58.40 |

| | |
|---|-------|
| Skerne Poultry TRUE 600to700 DrainedAr | 37.48 |
| Skerne Poultry TRUE 600to700 DrainedArGr | 35.35 |
| Skerne Poultry TRUE 700to900 DrainedAr | 46.76 |
| Skerne Poultry TRUE 700to900 DrainedArGr | 38.28 |
| Skerne Dairy TRUE 600to700 DrainedArGr | 19.31 |
| Skerne Dairy TRUE 700to900 FreeDrain | 54.09 |
| Skerne Lowland TRUE 600to700 FreeDrain | 15.54 |
| Skerne Lowland TRUE 600to700 DrainedAr | 10.52 |
| Skerne Lowland FALSE 600to700 DrainedArGr | 10.29 |
| Skerne Lowland TRUE 600to700 DrainedArGr | 10.27 |
| Skerne Lowland TRUE 700to900 DrainedArGr | 12.64 |
| Skerne Mixed TRUE 600to700 FreeDrain | 27.64 |
| Skerne Mixed TRUE 600to700 DrainedAr | 19.43 |
| Skerne Mixed TRUE 600to700 DrainedArGr | 19.56 |
| Skerne Mixed TRUE 700to900 FreeDrain | 34.82 |
| Skerne Mixed TRUE 700to900 DrainedArGr | 22.06 |
| Saltburn Coast Cereals FALSE 600to700 DrainedAr | 18.50 |
| Saltburn Coast Cereals FALSE 600to700 DrainedArGr | 19.76 |
| Saltburn Coast Cereals FALSE 700to900 FreeDrain | 30.24 |
| Saltburn Coast Cereals FALSE 700to900 DrainedAr | 23.24 |
| Saltburn Coast Cereals FALSE 700to900 DrainedArGr | 21.76 |
| Saltburn Coast General FALSE 700to900 FreeDrain | 19.73 |
| Saltburn Coast General FALSE 700to900 DrainedAr | 14.85 |
| Saltburn Coast General FALSE 700to900 DrainedArGr | 13.50 |
| Saltburn Coast Pig FALSE 700to900 FreeDrain | 91.90 |
| Saltburn Coast Pig FALSE 700to900 DrainedAr | 64.31 |
| Saltburn Coast Pig FALSE 700to900 DrainedArGr | 54.23 |
| Saltburn Coast Dairy FALSE 700to900 FreeDrain | 24.20 |
| Saltburn Coast Dairy FALSE 700to900 DrainedAr | 18.92 |
| Saltburn Coast Dairy FALSE 700to900 DrainedArGr | 13.00 |
| Saltburn Coast LFA FALSE 600to700 DrainedAr | 7.33 |
| Saltburn Coast LFA FALSE 700to900 FreeDrain | 15.09 |
| Saltburn Coast LFA FALSE 700to900 DrainedAr | 11.96 |
| Saltburn Coast LFA FALSE 700to900 DrainedArGr | 8.19 |
| Saltburn Coast Lowland FALSE 600to700 DrainedAr | 11.38 |
| Saltburn Coast Lowland FALSE 700to900 FreeDrain | 23.48 |
| Saltburn Coast Lowland FALSE 700to900 DrainedAr | 18.31 |
| Saltburn Coast Lowland FALSE 700to900 DrainedArGr | 11.94 |
| Saltburn Coast Mixed FALSE 600to700 DrainedArGr | 19.15 |
| Saltburn Coast Mixed FALSE 700to900 FreeDrain | 35.32 |
| Saltburn Coast Mixed FALSE 700to900 DrainedAr | 26.91 |
| Saltburn Coast Mixed FALSE 700to900 DrainedArGr | 21.72 |
| Leven Northumbria Cereals FALSE 600to700 DrainedAr | 18.35 |
| Leven Northumbria Cereals FALSE 600to700 DrainedArGr | 19.81 |
| Leven Northumbria Cereals FALSE 700to900 FreeDrain | 29.64 |
| Leven Northumbria Cereals FALSE 700to900 DrainedAr | 23.11 |
| Leven Northumbria Cereals FALSE 700to900 DrainedArGr | 21.94 |
| Leven Northumbria Cereals FALSE 900to1200 DrainedArGr | 25.51 |
| Leven Northumbria General FALSE 600to700 DrainedAr | 11.59 |
| Leven Northumbria General FALSE 600to700 DrainedArGr | 12.11 |

| | |
|---|--------|
| Leven Northumbria General FALSE 700to900 DrainedAr | 14.72 |
| Leven Northumbria General FALSE 700to900 DrainedArGr | 13.39 |
| Leven Northumbria General FALSE 900to1200 FreeDrain | 20.63 |
| Leven Northumbria General FALSE 900to1200 DrainedArGr | 15.68 |
| Leven Northumbria Pig FALSE 600to700 DrainedAr | 72.88 |
| Leven Northumbria Pig FALSE 700to900 DrainedAr | 90.98 |
| Leven Northumbria Pig FALSE 700to900 DrainedArGr | 75.75 |
| Leven Northumbria Pig FALSE 900to1200 DrainedAr | 108.78 |
| Leven Northumbria Poultry FALSE 600to700 DrainedArGr | 46.39 |
| Leven Northumbria Poultry FALSE 700to900 DrainedArGr | 50.75 |
| Leven Northumbria Dairy FALSE 600to700 DrainedAr | 11.92 |
| Leven Northumbria Dairy FALSE 600to700 DrainedArGr | 10.30 |
| Leven Northumbria Dairy TRUE 600to700 DrainedArGr | 10.16 |
| Leven Northumbria Dairy FALSE 700to900 DrainedAr | 18.81 |
| Leven Northumbria Dairy FALSE 700to900 DrainedArGr | 12.82 |
| Leven Northumbria Dairy FALSE 900to1200 DrainedArGr | 17.29 |
| Leven Northumbria LFA FALSE 600to700 DrainedAr | 5.61 |
| Leven Northumbria LFA FALSE 700to900 DrainedAr | 9.18 |
| Leven Northumbria LFA FALSE 700to900 DrainedArGr | 7.62 |
| Leven Northumbria LFA FALSE 900to1200 FreeDrain | 12.24 |
| Leven Northumbria LFA FALSE 900to1200 DrainedAr | 11.67 |
| Leven Northumbria LFA FALSE 900to1200 DrainedArGr | 9.93 |
| Leven Northumbria Lowland FALSE 600to700 DrainedAr | 8.06 |
| Leven Northumbria Lowland FALSE 600to700 DrainedArGr | 8.07 |
| Leven Northumbria Lowland FALSE 700to900 DrainedAr | 12.88 |
| Leven Northumbria Lowland FALSE 700to900 DrainedArGr | 9.91 |
| Leven Northumbria Lowland FALSE 900to1200 DrainedArGr | 13.04 |
| Leven Northumbria Mixed FALSE 600to700 DrainedAr | 16.93 |
| Leven Northumbria Mixed FALSE 600to700 DrainedArGr | 17.27 |
| Leven Northumbria Mixed FALSE 700to900 FreeDrain | 29.85 |
| Leven Northumbria Mixed FALSE 700to900 DrainedArGr | 19.60 |
| Leven Northumbria Mixed FALSE 900to1200 DrainedArGr | 23.31 |
| Cereals FALSE Under600 DrainedAr | 15.67 |
| Cereals FALSE 600to700 FreeDrain | 24.58 |
| Cereals TRUE 600to700 FreeDrain | 24.49 |
| Cereals FALSE 600to700 DrainedAr | 18.23 |
| Cereals TRUE 600to700 DrainedAr | 18.17 |
| Cereals FALSE 600to700 DrainedArGr | 19.60 |
| Cereals TRUE 600to700 DrainedArGr | 19.54 |
| Cereals FALSE 700to900 FreeDrain | 29.58 |
| Cereals TRUE 700to900 FreeDrain | 29.48 |
| Cereals FALSE 700to900 DrainedAr | 22.96 |
| Cereals TRUE 700to900 DrainedAr | 22.89 |
| Cereals FALSE 700to900 DrainedArGr | 21.68 |
| Cereals TRUE 700to900 DrainedArGr | 21.62 |
| Cereals FALSE 900to1200 FreeDrain | 31.38 |
| Cereals FALSE 900to1200 DrainedArGr | 25.16 |
| General FALSE 600to700 FreeDrain | 17.87 |
| General TRUE 600to700 FreeDrain | 17.82 |
| General FALSE 600to700 DrainedAr | 12.71 |

| | |
|--|--------|
| General TRUE 600to700 DrainedAr | 12.68 |
| General FALSE 600to700 DrainedArGr | 13.16 |
| General TRUE 600to700 DrainedArGr | 13.13 |
| General FALSE 700to900 FreeDrain | 21.49 |
| General TRUE 700to900 FreeDrain | 21.43 |
| General FALSE 700to900 DrainedAr | 16.06 |
| General FALSE 700to900 DrainedArGr | 14.43 |
| General TRUE 700to900 DrainedArGr | 14.40 |
| General FALSE 900to1200 FreeDrain | 22.77 |
| General FALSE 900to1200 DrainedAr | 20.27 |
| General FALSE 900to1200 DrainedArGr | 16.65 |
| General FALSE 1200to1500 FreeDrain | 23.02 |
| General FALSE 1200to1500 DrainedArGr | 19.73 |
| Horticulture FALSE 600to700 DrainedAr | 12.61 |
| Horticulture FALSE 600to700 DrainedArGr | 12.97 |
| Horticulture TRUE 600to700 DrainedArGr | 12.94 |
| Horticulture FALSE 700to900 DrainedArGr | 14.12 |
| Horticulture FALSE 900to1200 DrainedArGr | 16.30 |
| Pig FALSE 600to700 FreeDrain | 111.42 |
| Pig FALSE 600to700 DrainedAr | 73.39 |
| Pig FALSE 600to700 DrainedArGr | 69.05 |
| Pig TRUE 600to700 DrainedArGr | 64.78 |
| Pig FALSE 700to900 FreeDrain | 131.83 |
| Pig TRUE 700to900 FreeDrain | 132.65 |
| Pig FALSE 700to900 DrainedAr | 91.87 |
| Pig FALSE 700to900 DrainedArGr | 76.03 |
| Pig FALSE 900to1200 DrainedArGr | 83.38 |
| Poultry FALSE 600to700 FreeDrain | 104.19 |
| Poultry TRUE 600to700 FreeDrain | 104.62 |
| Poultry TRUE 600to700 DrainedAr | 65.58 |
| Poultry FALSE 600to700 DrainedArGr | 63.37 |
| Poultry TRUE 600to700 DrainedArGr | 59.76 |
| Poultry FALSE 700to900 DrainedAr | 85.18 |
| Poultry FALSE 700to900 DrainedArGr | 69.30 |
| Poultry TRUE 700to900 DrainedArGr | 64.64 |
| Poultry FALSE 900to1200 FreeDrain | 129.23 |
| Poultry FALSE 900to1200 DrainedArGr | 75.58 |
| Poultry FALSE 1200to1500 FreeDrain | 131.22 |
| Dairy FALSE 600to700 FreeDrain | 29.64 |
| Dairy TRUE 600to700 FreeDrain | 29.33 |
| Dairy FALSE 600to700 DrainedAr | 19.82 |
| Dairy TRUE 600to700 DrainedAr | 19.60 |
| Dairy FALSE 600to700 DrainedArGr | 15.16 |
| Dairy TRUE 600to700 DrainedArGr | 14.84 |
| Dairy FALSE 700to900 FreeDrain | 41.39 |
| Dairy TRUE 700to900 FreeDrain | 40.98 |
| Dairy FALSE 700to900 DrainedAr | 32.18 |
| Dairy FALSE 700to900 DrainedArGr | 18.79 |
| Dairy FALSE 900to1200 DrainedArGr | 24.95 |
| LFA FALSE 600to700 FreeDrain | 7.55 |

| | |
|--------------------------------------|-------|
| LFA TRUE 600to700 FreeDrain | 7.51 |
| LFA FALSE 600to700 DrainedAr | 5.38 |
| LFA FALSE 600to700 DrainedArGr | 5.45 |
| LFA TRUE 600to700 DrainedArGr | 5.44 |
| LFA FALSE 700to900 FreeDrain | 10.66 |
| LFA TRUE 700to900 FreeDrain | 10.61 |
| LFA FALSE 700to900 DrainedAr | 8.64 |
| LFA FALSE 700to900 DrainedArGr | 7.01 |
| LFA TRUE 700to900 DrainedArGr | 7.00 |
| LFA FALSE 900to1200 FreeDrain | 11.36 |
| LFA FALSE 900to1200 DrainedAr | 10.84 |
| LFA FALSE 900to1200 DrainedArGr | 9.05 |
| LFA FALSE 1200to1500 FreeDrain | 11.06 |
| LFA FALSE 1200to1500 DrainedAr | 11.88 |
| LFA FALSE 1200to1500 DrainedArGr | 10.93 |
| LFA FALSE Over1500 FreeDrain | 10.24 |
| Lowland FALSE Under600 DrainedAr | 6.09 |
| Lowland FALSE 600to700 FreeDrain | 12.28 |
| Lowland TRUE 600to700 FreeDrain | 12.20 |
| Lowland FALSE 600to700 DrainedAr | 8.37 |
| Lowland TRUE 600to700 DrainedAr | 8.32 |
| Lowland FALSE 600to700 DrainedArGr | 8.04 |
| Lowland TRUE 600to700 DrainedArGr | 8.02 |
| Lowland FALSE 700to900 FreeDrain | 17.38 |
| Lowland TRUE 700to900 FreeDrain | 17.28 |
| Lowland FALSE 700to900 DrainedAr | 13.62 |
| Lowland FALSE 700to900 DrainedArGr | 10.01 |
| Lowland TRUE 700to900 DrainedArGr | 9.99 |
| Lowland FALSE 900to1200 FreeDrain | 18.51 |
| Lowland FALSE 900to1200 DrainedArGr | 13.30 |
| Lowland FALSE 1200to1500 FreeDrain | 18.00 |
| Lowland FALSE 1200to1500 DrainedArGr | 16.55 |
| Mixed FALSE 600to700 FreeDrain | 24.43 |
| Mixed TRUE 600to700 FreeDrain | 24.36 |
| Mixed FALSE 600to700 DrainedAr | 17.25 |
| Mixed TRUE 600to700 DrainedAr | 17.03 |
| Mixed FALSE 600to700 DrainedArGr | 17.16 |
| Mixed TRUE 600to700 DrainedArGr | 16.89 |
| Mixed FALSE 700to900 FreeDrain | 30.96 |
| Mixed TRUE 700to900 FreeDrain | 30.87 |
| Mixed FALSE 700to900 DrainedAr | 23.68 |
| Mixed TRUE 700to900 DrainedAr | 23.39 |
| Mixed FALSE 700to900 DrainedArGr | 19.58 |
| Mixed TRUE 700to900 DrainedArGr | 19.23 |
| Mixed FALSE 900to1200 FreeDrain | 32.78 |
| Mixed FALSE 900to1200 DrainedArGr | 23.43 |
| Greenspace | 3.00 |
| Community food growing | 16.73 |
| Woodland | 3.00 |

| | | |
|----------------------------------|--|------|
| Shrub | | 3.00 |
| Water | | 0.00 |
| Residential urban land | | #N/A |
| Commercial/industrial urban land | | #N/A |
| Open urban land | | #N/A |

| Residential P export coefficient (kg/ha/yr) | Commercial / industrial P export coefficient (kg/ha/yr) | Open urban P export coefficient (kg/ha/yr) |
|--|--|---|
| 1.00 | 0.73 | 0.54 |
| 1.05 | 0.77 | 0.56 |
| 1.10 | 0.81 | 0.59 |
| 1.16 | 0.85 | 0.62 |
| 1.21 | 0.89 | 0.65 |
| 1.27 | 0.93 | 0.68 |
| 1.32 | 0.97 | 0.71 |
| 1.37 | 1.00 | 0.74 |
| 1.45 | 1.06 | 0.78 |
| 1.55 | 1.14 | 0.83 |
| 1.65 | 1.21 | 0.89 |
| 1.75 | 1.28 | 0.94 |
| 1.85 | 1.35 | 0.99 |
| 1.95 | 1.43 | 1.05 |
| 2.10 | 1.54 | 1.13 |
| 2.30 | 1.68 | 1.24 |
| 2.60 | 1.90 | 1.40 |
| 3.00 | 2.20 | 1.61 |
| 3.60 | 2.64 | 1.93 |
| 4.40 | 3.22 | 2.36 |
| 5.40 | 3.95 | 2.90 |
| 7.01 | 5.13 | 3.76 |
| 9.51 | 6.96 | 5.10 |

| Farm Lookup | Column1 | Mean N export of farm type and climate combination | Column2 |
|-----------------------|---------|---|---------|
| Cereals Under600 | | 16.26 | |
| Cereals 600to700 | | 21.55 | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 700to900 | | 25.01 | |
| General 600to700 | | 16.15 | |
| General 600to700 | | | |
| General 600to700 | | | |
| General 600to700 | | | |
| Horticulture 600to700 | | 16.67 | |
| Horticulture 600to700 | | | |
| Horticulture 600to700 | | | |
| Pig 600to700 | | 88.90 | |
| Pig 600to700 | | | |
| Pig 600to700 | | | |
| Pig 600to700 | | | |
| Poultry 600to700 | | 126.31 | |
| Poultry 600to700 | | | |
| Poultry 600to700 | | | |
| Dairy 600to700 | | 24.73 | |
| Dairy 600to700 | | | |
| Dairy 600to700 | | | |
| LFA 600to700 | | 6.89 | |
| LFA 700to900 | | | |
| LFA 700to900 | | | |
| Lowland Under600 | | 8.41 | |
| Lowland 600to700 | | 13.02 | |
| Lowland 600to700 | | | |
| Lowland 600to700 | | | |
| Lowland 600to700 | | | |
| Lowland 600to700 | | | |
| Mixed 600to700 | | 24.67 | |
| Mixed 600to700 | | | |
| Mixed 600to700 | | | |
| Mixed 600to700 | | | |
| Mixed 700to900 | | 19.66 | |
| Cereals 600to700 | | 21.80 | |

| | | | |
|-------------------|--|-------|--|
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 700to900 | | 25.92 | |
| Cereals 700to900 | | | |
| Cereals 700to900 | | | |
| Cereals 700to900 | | | |
| Cereals 700to900 | | | |
| Cereals 700to900 | | | |
| Cereals 900to1200 | | 29.00 | |
| General 600to700 | | 16.85 | |
| General 600to700 | | | |
| General 600to700 | | | |
| General 600to700 | | | |
| General 700to900 | | 20.96 | |
| General 700to900 | | | |
| General 700to900 | | | |
| General 700to900 | | | |
| General 700to900 | | | |
| General 900to1200 | | 22.58 | |
| General 900to1200 | | | |
| Pig 600to700 | | 67.55 | |
| Pig 600to700 | | | |
| Pig 600to700 | | | |
| Pig 700to900 | | 80.23 | |
| Pig 700to900 | | | |
| Pig 700to900 | | | |
| Dairy 600to700 | | 21.39 | |
| Dairy 700to900 | | 30.40 | |
| Dairy 700to900 | | | |
| Dairy 700to900 | | | |
| LFA 600to700 | | 6.65 | |
| LFA 600to700 | | | |
| LFA 600to700 | | | |
| LFA 700to900 | | 9.84 | |
| LFA 700to900 | | | |
| LFA 700to900 | | | |
| LFA 700to900 | | | |
| LFA 900to1200 | | 11.34 | |
| LFA 900to1200 | | | |
| LFA 1200to1500 | | 11.79 | |
| Lowland 600to700 | | 9.93 | |
| Lowland 600to700 | | | |
| Lowland 600to700 | | | |
| Lowland 600to700 | | | |
| Lowland 700to900 | | 14.42 | |
| Lowland 700to900 | | | |
| Lowland 700to900 | | | |
| Lowland 700to900 | | | |

| | | | |
|--------------------|--|-------|--|
| Lowland 700to900 | | | |
| Lowland 900to1200 | | 16.85 | |
| Lowland 900to1200 | | | |
| Mixed 600to700 | | 21.34 | |
| Mixed 600to700 | | | |
| Mixed 600to700 | | | |
| Mixed 600to700 | | | |
| Mixed 700to900 | | 27.67 | |
| Mixed 700to900 | | | |
| Mixed 700to900 | | | |
| Mixed 700to900 | | | |
| Mixed 900to1200 | | 29.46 | |
| General 700to900 | | 12.15 | |
| General 700to900 | | | |
| General 900to1200 | | 14.22 | |
| General 900to1200 | | | |
| General 1200to1500 | | 12.06 | |
| General 1200to1500 | | | |
| Poultry 900to1200 | | 37.79 | |
| Poultry 900to1200 | | | |
| Poultry 1200to1500 | | 48.70 | |
| LFA 700to900 | | 7.65 | |
| LFA 700to900 | | | |
| LFA 900to1200 | | 9.10 | |
| LFA 900to1200 | | | |
| LFA 1200to1500 | | 9.08 | |
| LFA 1200to1500 | | | |
| LFA 1200to1500 | | | |
| LFA Over1500 | | 8.19 | |
| Lowland 700to900 | | 12.00 | |
| Lowland 900to1200 | | 11.44 | |
| Lowland 900to1200 | | | |
| Lowland 1200to1500 | | 12.44 | |
| Lowland 1200to1500 | | | |
| Mixed 700to900 | | 25.85 | |
| Mixed 700to900 | | | |
| Mixed 900to1200 | | 30.00 | |
| Mixed 900to1200 | | | |
| Cereals 600to700 | | 22.03 | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 600to700 | | | |
| Cereals 700to900 | | 25.10 | |
| General 600to700 | | 17.41 | |
| General 600to700 | | | |
| General 600to700 | | | |
| Poultry 600to700 | | 43.68 | |
| Poultry 600to700 | | | |

| | | | |
|-------------------|--|-------|--|
| Poultry 600to700 | | | |
| Poultry 600to700 | | | |
| Poultry 700to900 | | 42.52 | |
| Poultry 700to900 | | | |
| Dairy 600to700 | | 22.82 | |
| Dairy 700to900 | | 35.02 | |
| Lowland 600to700 | | 12.12 | |
| Lowland 600to700 | | | |
| Lowland 600to700 | | | |
| Lowland 600to700 | | | |
| Lowland 700to900 | | 14.51 | |
| Mixed 600to700 | | 22.21 | |
| Mixed 600to700 | | | |
| Mixed 600to700 | | | |
| Mixed 700to900 | | 26.85 | |
| Mixed 700to900 | | | |
| Cereals 600to700 | | 20.92 | |
| Cereals 600to700 | | | |
| Cereals 700to900 | | 25.08 | |
| Cereals 700to900 | | | |
| Cereals 700to900 | | | |
| General 700to900 | | 16.03 | |
| General 700to900 | | | |
| General 700to900 | | | |
| Pig 700to900 | | 70.14 | |
| Pig 700to900 | | | |
| Pig 700to900 | | | |
| Dairy 700to900 | | 18.71 | |
| Dairy 700to900 | | | |
| Dairy 700to900 | | | |
| LFA 600to700 | | 6.76 | |
| LFA 700to900 | | 11.75 | |
| LFA 700to900 | | | |
| LFA 700to900 | | | |
| Lowland 600to700 | | 10.54 | |
| Lowland 700to900 | | 17.91 | |
| Lowland 700to900 | | | |
| Lowland 700to900 | | | |
| Mixed 600to700 | | 20.25 | |
| Mixed 700to900 | | 27.98 | |
| Mixed 700to900 | | | |
| Mixed 700to900 | | | |
| Cereals 600to700 | | 20.91 | |
| Cereals 600to700 | | | |
| Cereals 700to900 | | 24.89 | |
| Cereals 700to900 | | | |
| Cereals 700to900 | | | |
| Cereals 900to1200 | | 28.44 | |
| General 600to700 | | 13.84 | |
| General 600to700 | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| Residential N export coefficient (kg/ha/yr) | Commercial / industrial N export coefficient (kg/ha/yr) | Open urban N export coefficient (kg/ha/yr) |
|--|--|---|
| 9.41 | 5.02 | 5.55 |
| 9.83 | 5.24 | 5.80 |
| 10.33 | 5.51 | 6.09 |
| 10.83 | 5.78 | 6.38 |
| 11.32 | 6.04 | 6.68 |
| 11.82 | 6.30 | 6.97 |
| 12.31 | 6.56 | 7.25 |
| 12.79 | 6.82 | 7.54 |
| 13.51 | 7.20 | 7.96 |
| 14.45 | 7.70 | 8.52 |
| 15.38 | 8.20 | 9.06 |
| 16.31 | 8.70 | 9.61 |
| 17.24 | 9.20 | 10.16 |
| 18.17 | 9.69 | 10.71 |
| 19.57 | 10.44 | 11.54 |
| 21.44 | 11.43 | 12.64 |
| 24.23 | 12.92 | 14.28 |
| 27.96 | 14.91 | 16.48 |
| 33.55 | 17.89 | 19.78 |
| 41.01 | 21.87 | 24.17 |
| 50.32 | 26.84 | 29.67 |
| 65.24 | 34.79 | 38.45 |
| 88.53 | 47.22 | 52.19 |

| |
|--|
| |
| |
| |
| |
| |



