
From: Ian Knight <ian@knight-consulting.co.uk>
Sent: 15 January 2025 18:10
To: NEW West 2
Cc: KAD Admin
Subject: APP/W1715/W/24/3355330 - The Old Stables, Botley - Attn Jennie Ball
Attachments: F/24/98077 The Old Stables Nutrient Offset; FW: Planning Application F/24/98077 The Old Stables

Thanks Jenni for passing the LPA's statement to us (3/1/25) Following the LPAs retort to our current appeal, they make a few comments where we would like to submit as our rejoinder, the following:-

1. Public open space. Botley has many quite pedestrian friendly roads which for many, wandering along is akin to a country stroll. The LPA suggestion that the recreation ground being nearest amenity is incorrect. The pleasantly verdant Church Lane leading to Botley Parish Quay (due south of the application site by 85m) or similarly, just 100m to Mill Hill to look over the upper stretches of the River Hamble. Or within 150m, walk to 'Mrs Potts By The River' coffee shop.



Given the lack of private gardens for the dozens of village centre dwellers – these areas are popular with locals and those who've travelled further. Many park in the High Street for the walk to Upper Hamble Country Park and the historic Manor Farm – both via Church Lane.



200m north of the appellant site, is the entrance to the Hampshire County owned footpaths onward from the allotment site too.

It is disingenuous for the LPA to imply the proposal would be devoid of local amenity.

2. Lack of Parking. There is a parking space (existing) already on site so this should not have been repeated.
3. SPA (and lack of contribution). [see attached emails] This is the most frustrating of all the points as it conceals that the council and council alone are the ones who can allow this to proceed. Attached are emails that show the appellant was urging the council to engage and sell the credits that were needed but this was falling on deaf ears – perhaps in part as the officers had prejudged the application negatively, rather than seeing it as a sensitive reuse of a building with no prospect to be anything other than a residence as it was no longer needed as an office and with the listed curtilage matters, was a sustainable deintensification use that should have been the presumptive decision.

Kind Regards



Architectural Technologist
Director

01489 660194
07801 346479
@ ian@knight-consulting.co.uk

www.knight-consulting.co.uk

First Floor Unit 7, The Quarterdeck,
Port Solent, PO6 4TP



From: KAD Admin <admin@knight-consulting.co.uk>
Sent: 09 September 2024 12:33
To: Nutrient Offset Scheme
Subject: F/24/98077 The Old Stables Nutrient Offset
Attachments: image005.jpg; image001.png; phosphate-scheme-enquiry-form-20092022 COMPLETED.pdf; nitrate-scheme-enquiry-form-11072022 COMPLETED.pdf

Dear Team,

Please find attached the forms requesting reservation.

We look forward to hearing from you.

Kind Regards,



Planning and Office Manager

01489 660194
07801 346479
@ admin@knight-consulting.co.uk
www.knight-consulting.co.uk

- First Floor Unit 7, The Quarterdeck,
Port Solent, PO6 4TP





Eastleigh Borough Council Phosphate Scheme Expression of Interest

Applicant details

Name and address

PC Environmental
Dr Peter Clark
c/o agent Knight Consulting
Unit 7 The Quarterdeck
Botley

Contact name

Ian Knight

Contact number

01489 660194

Email address

ian@knight-consulting.co.uk

Planning Information

Local Planning Authority

Eastleigh Borough Council

Case officer

Joanna Azavedo-Parker

Contact number

02380 688000

Email address

planning@eastleigh.gov.uk

Planning reference number

F/24/98077

Planning status

awaiting validation

Number of additional dwellings included in the planning application

1

Development Information

Development name and address

The Old Stables
7 Winchester Street
Botley
SO30 2ER

Details of Mitigation

Mitigation required through offset scheme

0.07

Kg/P/year

River Basin affected by development proposals

Itchen

Fluvial catchment mitigation required

Itchen

Name of the wastewater treatment works the development will drain into

Chickenhall

Has LPA confirmed suitability of the offset scheme for the development?

Yes



No



Timescales

dd/mm/yy

Grant of consent date
(actual or anticipated date)

TBC

Start on site

January 2025

Occupation of overnight
accommodation

April 2025

Enquirer details

Enquiry submitted by

Ian Knight

Date of enquiry

09/09/2024

End of Form

Once completed, please return this form to nutrientoffset@eastleigh.gov.uk.

Receipt of an expression of interest is not a legally binding contract and no contract will be formed unless and until legal documentation is formally completed.

Eastleigh Borough Council

Nitrate Scheme Expression of Interest

Applicant details

Name and address

PC Environmental
Dr Peter Clark
c/o Knight Consulting
Unit 7 The Quarterdeck
Botley

Contact name

Ian Knight

Contact number

01489660194

Email address

ian@knight-consulting.co.uk

Planning Information

Local Planning Authority

Eastleigh

Case officer

Joanna Azavedo Parker

Contact number

02380 688000

Email address

planning@eastleigh.gov.uk

Planning reference number

F/24/98077

Planning status

Awaiting validation

Number of additional dwellings included in the planning application

1

Development Information

Development name and address

The Old Stables
7 Winchester Street
Botley
SO30 2EP

Details of Mitigation

Mitigation required through offset scheme

3.14

Kg/N/year

River Basin affected by development proposals

Hamble

Fluvial catchment mitigation required

Hamble

Name of the wastewater treatment works the development will drain into

Chickenhall

Has LPA confirmed suitability of the offset scheme for the development?

Yes



No



Timescales

dd/mm/yy

Grant of consent date
(actual or anticipated date)

TBC

Start on site

January 2025

Occupation of overnight
accommodation.

April 2025

Enquirer details

Enquiry submitted by

Ian Knight - Knight Consulting

Date of enquiry

09/09/2024

End of Form

Once completed, please return this form to nutrientoffset@eastleigh.gov.uk.

Receipt of an expression of interest is not a legally binding contract and no contract will be formed unless and until legal documentation is formally completed.

From: KAD Admin <admin@knight-consulting.co.uk>
Sent: 09 September 2024 12:35
To: Planning @ Eastleigh Borough Council
Subject: FW: Planning Application F/24/98077 The Old Stables
Attachments: image005.jpg; image001.png; F_24_98077 PL_Request Info (1).pdf; RESUB Copy of Itchen-Catchment-Nutrient-Budget-Calculator-Version-2-October-2022 (2).xlsx

Dear Planning,

Further to your letter, please find attached the nitrate calculator. I can confirm that the nutrient offset and phosphorus offset form have been sent to your nutrient team today.

We look forward to receiving confirmation of validation.

Kind Regards,

Planning and Office Manager

01489 660194
07801 346479
@ admin@knight-consulting.co.uk
www.knight-consulting.co.uk

- First Floor Unit 7, The Quarterdeck,
Port Solent, PO6 4TP



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Original
message -

From: "Planning (Eastleigh Borough Council)" <planning@eastleigh.gov.uk>
Date: 06/09/2024 11:12 (GMT+00:00)
To: Ian Knight <ian@knight-consulting.co.uk>
Subject: Planning Application F/24/98077

Application No: F/24/98077

Address: THE OLD STABLES, 7 WINCHESTER STREET, BOTLEY, SOUTHAMPTON, SO30 2EB

Description: Change of use from Offices (Class E) to 1no. 2 bed dwelling. No external changes are proposed.

Please see attached letter for the above application.

Case Management Officer Details

Name: Joanna Azavedo-Parker

Email: dmtechnicians@eastleigh.gov.uk

Phone: 023 8068 8000

Kind regards

Joanna

Planning 



MR IAN KNIGHT
KNIGHT ARCHITECTURAL DESIGN
UNIT 7
THE QUARTERDECK
PORT SOLENT
PORTSMOUTH
PO6 4TP

Application	F/24/98077
Case Officer	Joanna Azavedo-Parker
Telephone	023 8068 8000
Email	planning@eastleigh.gov.uk

Friday 6 September 2024

Dear Mr Knight

Application No: F/24/98077
Description: Change of use from Offices (Class E) to 1no. 2 bed dwelling.
No external changes are proposed.
Site: THE OLD STABLES, 7 WINCHESTER STREET, BOTLEY,
SOUTHAMPTON, SO30 2EB

I refer to your application received on Tuesday 27 August 2024 for the above development.

Thank you for the information you have sent in following my last request.

Before this proposal can be processed as a valid application, please could you provide Nutrient Budget Calculations and details of a mitigation scheme (item 26).

Please see the below link to our local validation list. This sets out our requirements before an application can be made valid, and may be useful in putting together the information listed above: <https://www.eastleigh.gov.uk/media/14294/local-validation-list-2024.pdf>

If you are submitting the additional information requested by email, please send to planning@eastleigh.gov.uk quoting the reference number at the top of this letter.

If you are unclear about what you need to do, or have any difficulties in supplying the above information, please email planning@eastleigh.gov.uk quoting the application reference number.

Yours sincerely

A handwritten signature in black ink that reads "N Parker". The signature is fluid and cursive, with a horizontal line drawn underneath the name.

Nicholas Parker
Planning Manager



Nutrient Neutrality Budget

a tool for assessing the nutrient loading
to a Habitats Site

River Itchen SAC



Image Source:

Neil Howard

The River Itchen near Winchester

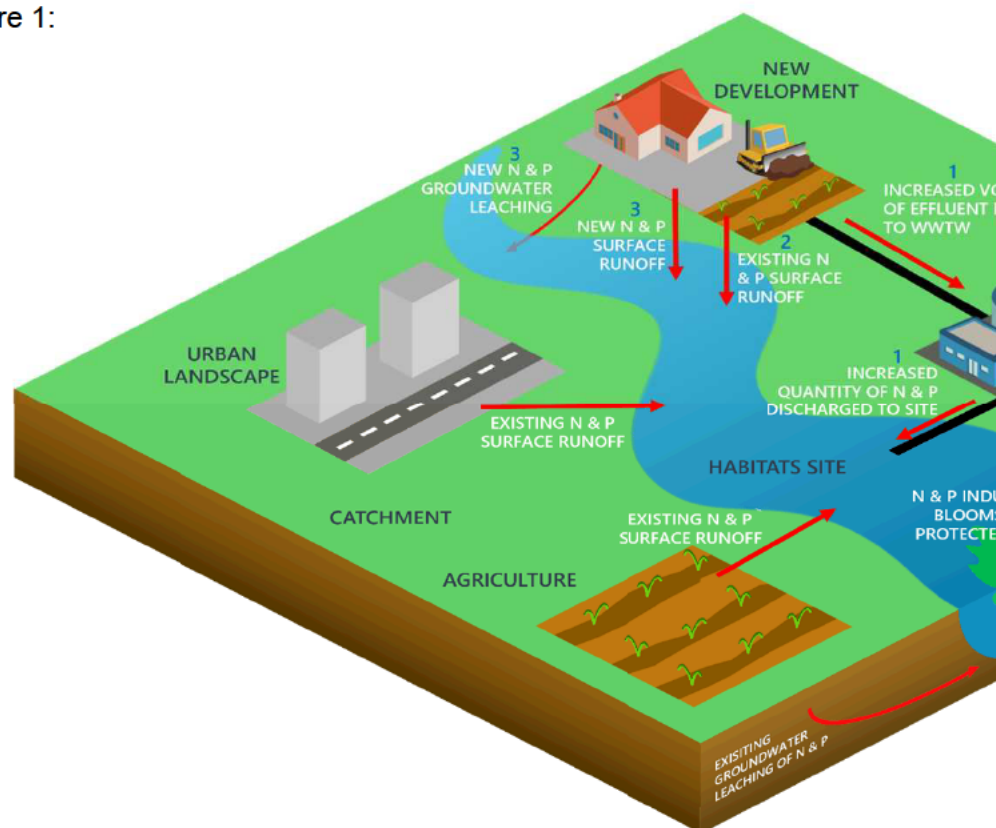
Copyright: © Neil Howard 2012

Background

There have been a series of court cases in recent years relating to how new plans for the Habitats Regulations process where there are existing high levels of background nutrients. The Environment Agency has asked the Government to review its advice on water quality effects on Habitats sites.

The additional nutrient load from the increase in wastewater and/or the change in land use created by a new residential development can create an impact pathway for potential impacts on Habitats sites that are already suffering from problems related to nutrient loading. This impact pathway is shown in Figure 1.

Figure 1:



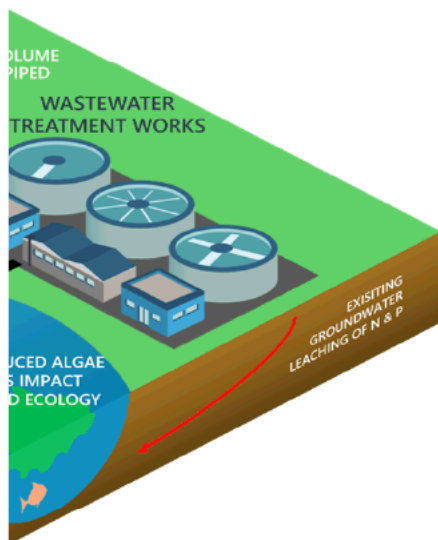
Habitats Regulations Assessments (HRAs) of new residential developments need to consider the potential for 'Likely Significant Effects' (LSE) on a Habitats site. If an HRA finds LSE, the Assessment will need to consider whether this nutrient load needs to be mitigated to protect the Habitats site.

The first step in an HRA involving nutrient neutrality is understanding both whether a new residential development will create a nutrient load and, if so, the amount of nutrients that require mitigation to achieve nutrient neutrality and, if so, the amount of nutrients that require mitigation to achieve nutrient neutrality.

This tool provides a step-by-step approach to calculating the nutrient budget for a nutrient budget can be completed using the methodology, certain site-specific details to be determined. The required details for each stage of the nutrient budget methodology, with an associated guidance document that informs users of this calculator how to use the calculator.

s or projects interact with the Habitats
. These decisions have led Natural

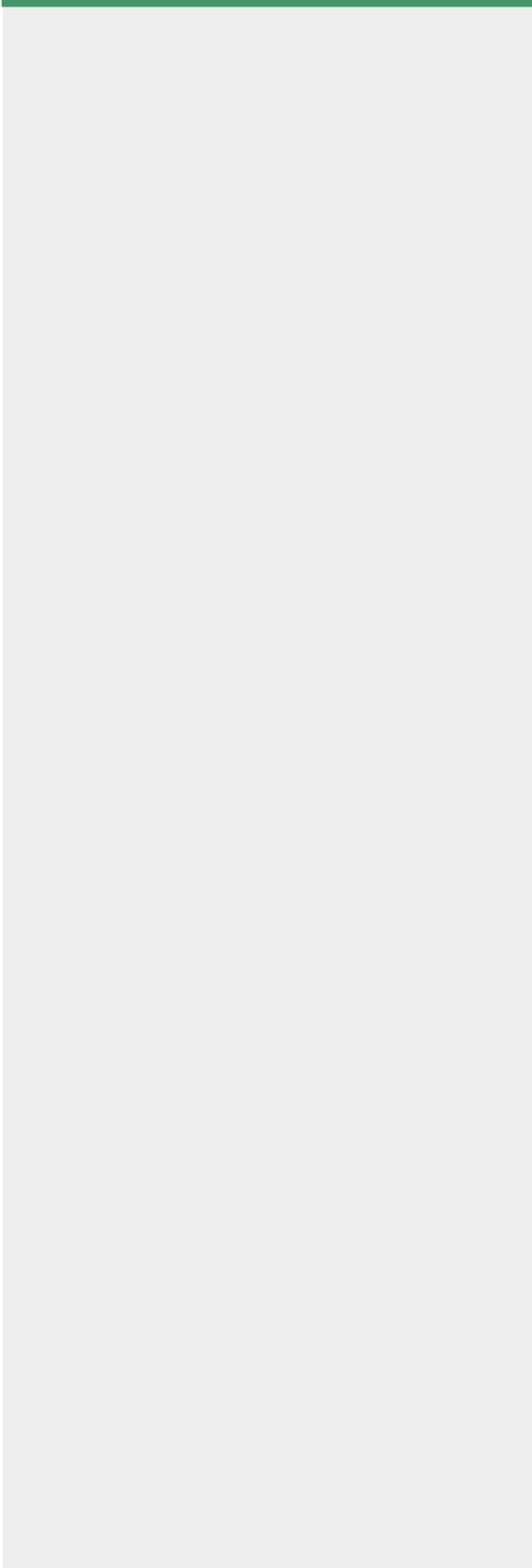
the land use of the development land
ntial negative effects on Habitats sites
athway is shown diagrammatically in



l to consider whether nutrient loading will
due to nutrient loading, the Appropriate
d in order to remove adverse effects on

er a residential development will need
quire mitigating on an annual basis. In
eate, a nutrient budget for the

new residential development. Before a
ails for the Habitats Site in question need
odology are shown in the instructions
ow to generate certain inputs to the



River Itchen Special Area of Conservation (SAC)

The River Itchen SAC is a Habitats site with water pollution and eutrophication co

The Itchen is a chalk river, which is a rare type of river habitat that can support a r

The river's vegetation is exceptionally species rich, with many of the typical chalk including species such as river water-crowfoot and stream water-crowfoot.

The river is rich in invertebrates, including Southern Damselfly, and supports dive Itchen supports one of the few populations of the native freshwater crayfish remain along with fish species such as Atlantic salmon, bullhead and brook lamprey, alor

Increased levels of nitrogen and phosphorus entering aquatic environments via s severely threaten these sensitive habitats and species within the SAC. The elevat eutrophication, leading to algal blooms which disrupt normal ecosystem function a community. These algal blooms can result in reduced levels of oxygen within the of many aquatic organisms including invertebrates and fish.

More detailed information on the qualifying features of the SAC and details of wat nutrient problems in the river are available in the Natural England River Itchen SA

C)

nsidered as a threat to its condition.

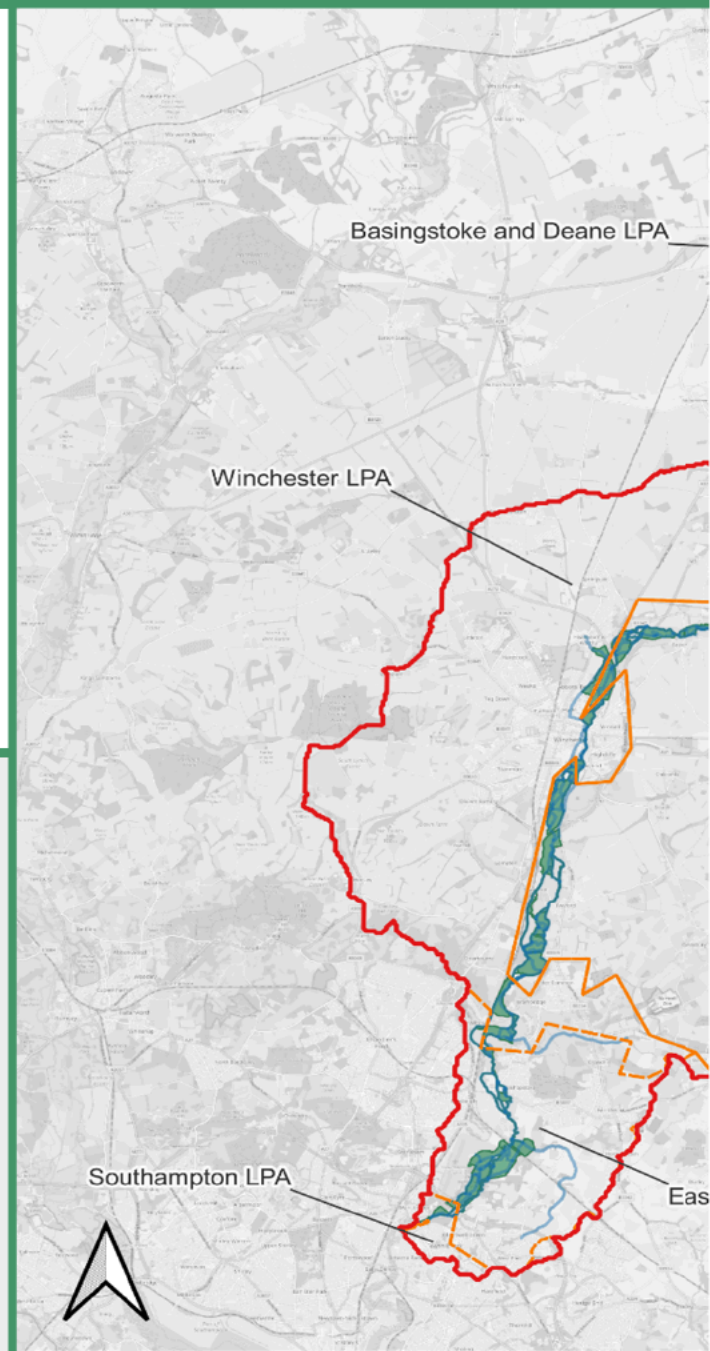
diverse ecology along its entire length.

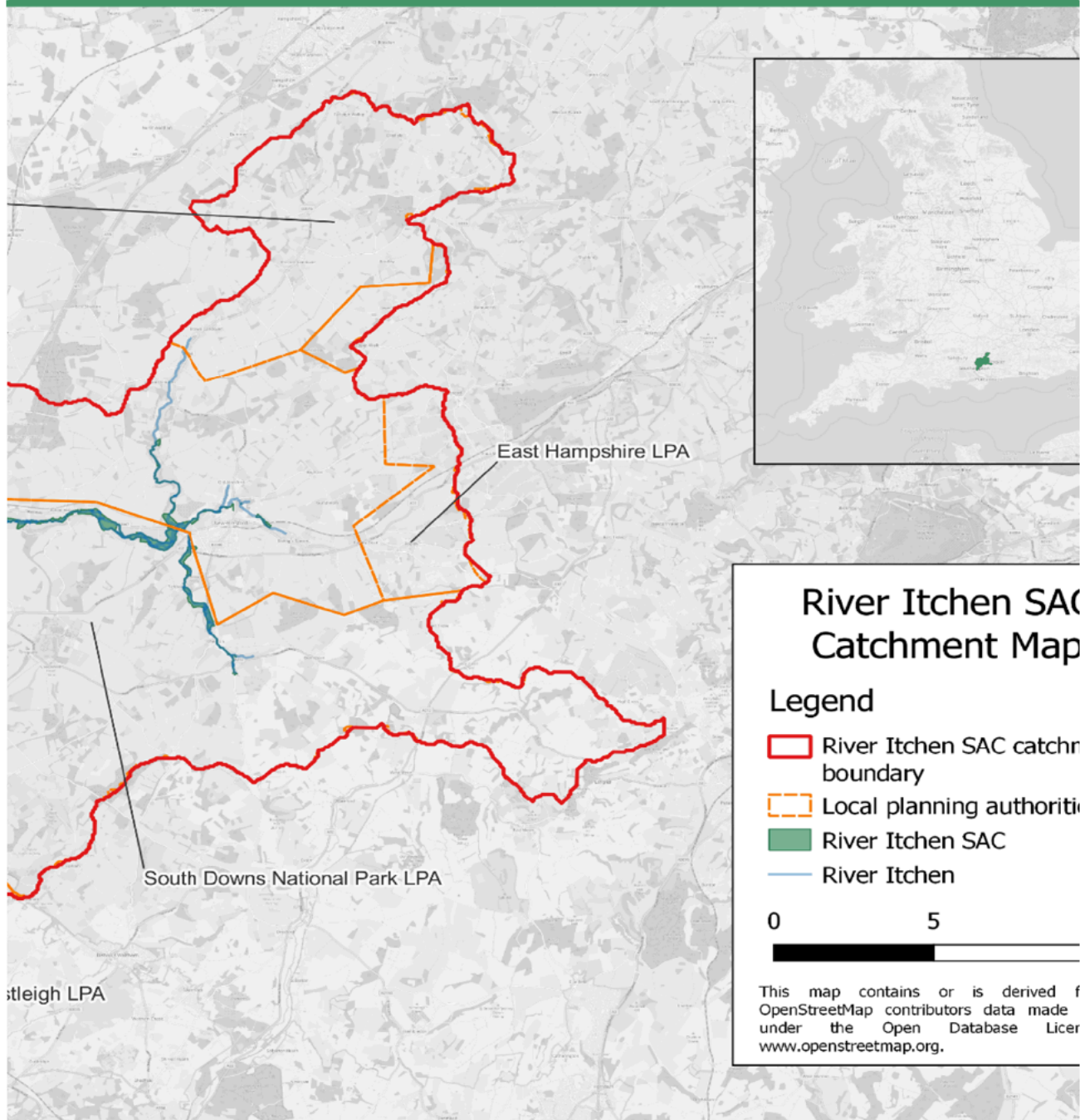
stream plants present in abundance,

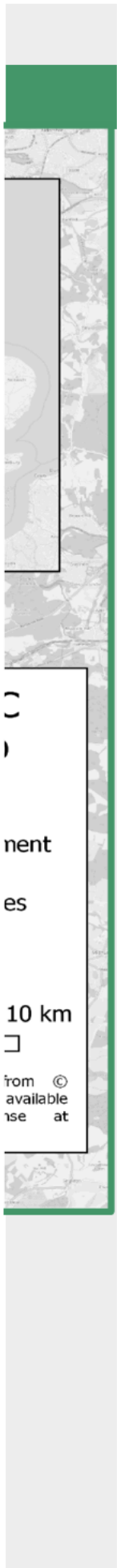
rse populations of aquatic molluscs. The
ining in the rivers of southern England,
ng with a population of otters.

urface water and groundwater can
ted levels of nutrients can cause
and cause major changes in the aquatic
water, which in turn can lead to the death

ter quality data highlighting the current
C evidence summary.







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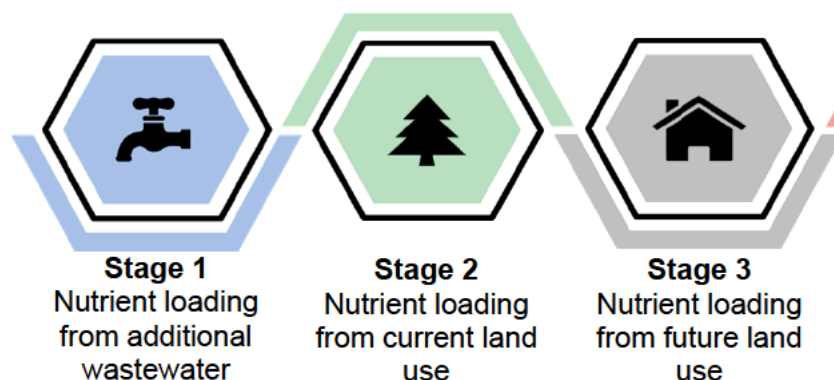
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available
use at

Instructions

The nutrient budget for a site is calculated in four stages, with each stage implemented sequentially.



1. General tips:

Key:

	Values to be entered by the user
	Fixed or calculated values
	Lookup tables

When a cell is selected, instructions are shown on how to fill out the cell:

Development Proposal (dwellings/units):	
Wastewater treatment works:	
Wastewater treatment works P permit (mg TP/litre):	

Please enter a number that represents the development project.

It is advisable to retain a blank copy of this workbook and "Save as" a new copy each time you make any mistakes in data inputs or to ease calculation of new nutrient budgets.

Note:

The values already included in this tool have been chosen based on research to develop a nutrient budget that meet the HRA tests of beyond reasonable scientific doubt, in perpetuity and in accordance with the precautionary principle. If editing any values in this tool, you must provide an evidence base to justify these changes and that the new inputs are selected in accordance with the precautionary principle.

2. Stage specific instructions:

2.1 Stage 1: calculate the new nutrient load associated with the additional wa

In this section the user will need to enter:

The date of first occupancy. This is because some wastewater treatment works (WwTW) will change the nutrient concentration permit values. This will be shown through the load from before and after the upgrade.

The average occupancy rate of the development will need to be entered. The default is 2.4 people per dwelling/unit. Only change this value if there is sufficient evidence that it differs from the national average.

The number of dwellings/units that will be in the development at the time of completion. Whether the catchment of the proposed development has a deductible acceptable load.

The receiving WwTW that the development will drain to. If it is uncertain what WwTW is receiving information from your sewerage company before completing the calculator. If it is not a septic tank or package treatment plant is being used, please select this option. Please select whether the nitrogen (N) or total phosphorus (TP) final effluent concentrations (in mg/l) are specified by the user defined or 'Package Treatment Plant user defined' and enter the manufacturer's values.

2.2 Stage 2 - calculate the annual nutrient load from existing (pre development)

In this section some environmental information about the development will need to be entered. The area(s) of landcover on the development site. Only landcovers for the land that is being developed are entered.

The drop down list of landcover types contains seven agricultural landcover types and seven types that may be present in the development. Please find out what landcover types are present on the site completing this tool. If there is a landcover within the development area that is not in the list please select the most similar landcover type.

The instructions at the bottom of this page detail how to find the environmental information for the site.

2.3 Stage 3 - calculate the annual nutrient load from new (post-development) land

In this section the user will need to select the type(s) and area(s) of the landcover present on the development site. The drop down list of landcover types contains eight different landcover types that may be present in the development. Please find out what landcover types will be within the development site before completion. If there is a landcover within the development site that is not in the list please select the most similar landcover type. The guidance document that accompanies this calculator breaks down what is included in each landcover type.

2.4 Stage 4 - calculate the net change in nutrient loading for the site and the final nutrient load for the development site:

This final stage automatically calculates the results from Stage 1-3 using the equations provided. The value(s) shown are how much nutrient mitigation is required in kilograms per year. If there are two values due to changing permits, the calculator will show the total annual load before and after the changing permit date.

2.5 The equation used to calculate the nutrient budget:





3. Site specific data collection instructions:

3.1 Instructions for finding the Operational Catchment that the development is in:

- a) Go to this link: <http://environment.data.gov.uk/catchment-planning/>
- b) Search the location by place name, postcode etc. This will give a high-level view of the exact location of the development.
- c) Click on the light blue area on the map in which the development is located. This will take you to the Catchment page
- d) Make note of the name of the Operational Catchment and select it from the dropdown list.

3.2 Instructions for finding the drainage associated with the predominant soil type:

- a) Go to this link: <http://www.landis.org.uk/soilscapes/#>.
- b) Find the site location on the map by using the search bar on the right side of the map. This will generate a pop up window in which you can view the soil information by clicking on the 'Soil information' option then click on the relevant soil type on the map and click on the 'Soil information' link below the 'Search' tab.
- c) The 'Soil drainage type' value can be found in the 'Soil information' under the title 'Soil drainage type'.
- d) Make a note of this soil type and select the relevant soil drainage type from the dropdown list.

3.3 Instructions for finding the annual average rainfall that the development will receive:

- a) Go to this link: <https://nrfa.ceh.ac.uk/data/station/spatial/42023>
- b) This link will bring the user to the Itchen at Riverside Park flow gauge catchment page.
- c) Click on the dropdown list next to the title 'Select spatial data type to view:' on the page and select the Legend tab.
- d) Zoom in on the map to find the location of the development and find the corresponding rainfall band.
- e) Select the rainfall band from the drop down list in the table. If your rainfall band is not in the list, select the closest band shown in the list.

3.4 Instructions for finding out whether the development is in a Nitrate Vulnerable Zone:

- a) Go to this link: <http://mapapps2.bgs.ac.uk/ukso/home.html?layers=NVZEng>
- b) Enter the location of the development site in the search bar.
- c) Once the area has been located, click on the map where the development is located.
- d) Make note of this and select this in the dropdown list.

nted in the following worksheets.



Stage 4
Nutrient budget
calculation



se enter the total
ber of dwellings/units
will be within the
elopment site as of the
ect completion date.

ch time you calculate a budget, in case of

termine suitable inputs to the nutrient
(practically speaking this is 80-125 years)
you must make sure there is a sufficient
ordance with the precautionary principle.

stewater:

wTW) may be due an upgrade in 2025
gh two values for the permits and nutrients

ilt setting is the national occupancy rate of
at the development will be different to the

tion.

loading or not.

W the site will drain to, please find this
ot feasible to connect to a WwTW and a
ase be aware that if the total nitrogen (TN)
manufacturer, please select 'Septic Tank
r specified value in the cell where prompted.

it) land use on the development site:

be entered as well as the type(s) and
eing altered by the development should be

nd eight different non-agricultural landcover
s are within the development before
n the list please select the most similar

mation for the site if it is unknown.

land use on the development site:

resent on the new site.

may be present on the development site.
mpleting this tool. If there is a landcover
cover type.

ided in each landcover type.

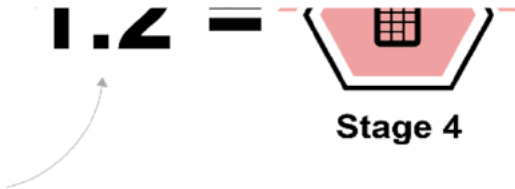
inal annual nutrient budget for the

on below.

ear to achieve nutrient neutrality.

nount of nutrient mitigation that is needed





s situated within:

of the area. Use the zoom feature to find
will bring the user to the Operational
down list in the relevant cell.

type within development site:

map in the 'Search' tab. Searching an area
'View soil information'. If this is not an
ion' tab on the right hand side of the map,

'Drainage:'
drop down list in the relevant cell.

will receive using the National River Flow

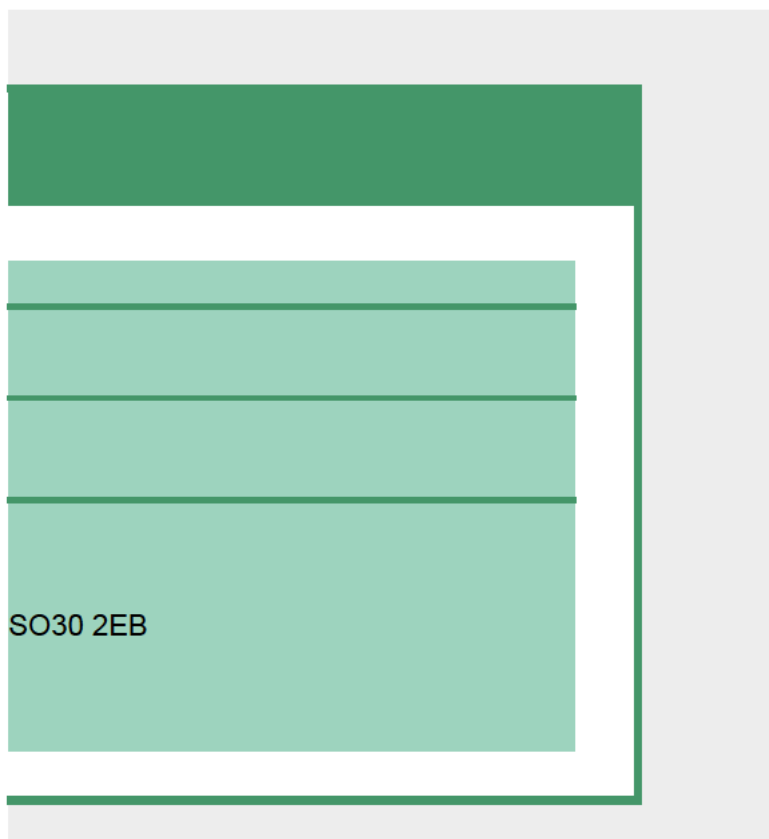
information page.
left of the map and select 'Rainfall'. Next
onding rainfall range from the Legend.
s not in the drop down list, please select the

able Zone (NVZ):

ated to find out if is within an NVZ.

Development site details

Date (dd/mm/yyyy):	10/07/2024
Site Name:	The Old Stables
Planning Application number:	F/24/98077
Site Address:	The Old Stables, Winchester Street, Botley,



Stage 1

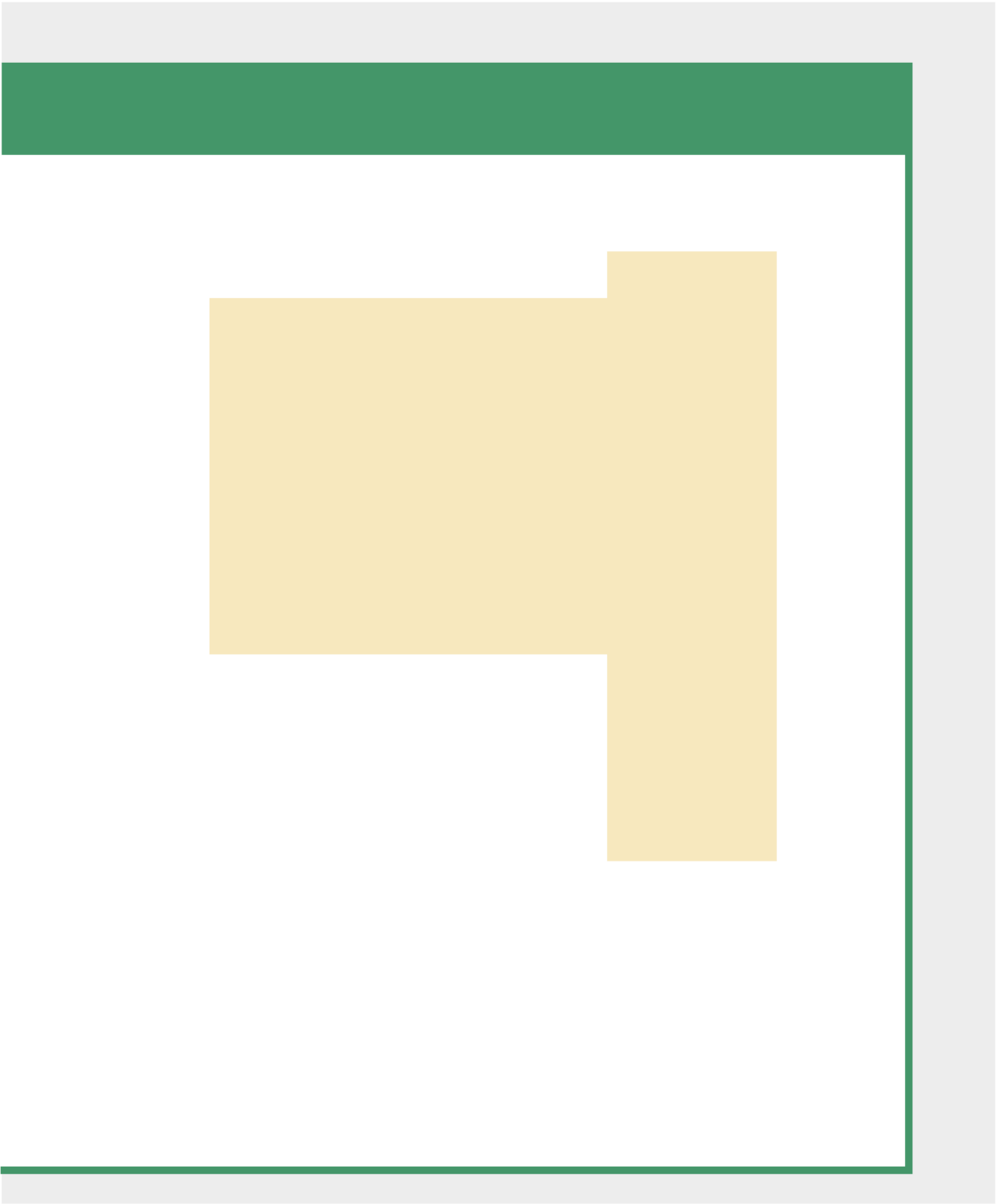
User Inputs

Date of first occupancy:	01/04/2025
Average occupancy rate:	2.40
Water usage (litres/person/day):	120
Development Proposal (dwellings/units):	1
Include deductible acceptable loading?	No
Wastewater treatment works:	Chickenhall Eastleigh WwTW
Wastewater treatment works P permit (mg TP/litre):	0.6
Wastewater treatment works N permit (mg TN/litre):	27

Stage 1 Calculated Loading

Stage 1 Nutrient Loading

Additional population	2.4	people
Wastewater by development	288	litres/day
Annual wastewater TP load	0.06	kg TP/yr
Annual wastewater TN load	2.56	kg TN/yr



Stage 2

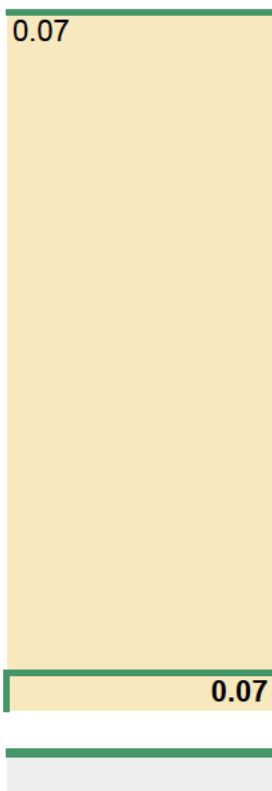
User Inputs

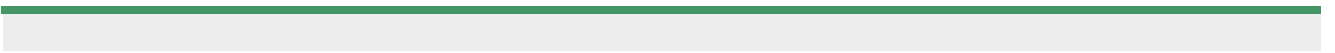
Catchment:	Itchen
Soil drainage type:	Freely draining
Annual average rainfall (mm):	700.1 - 750
Within Nitrate Vulnerable Zone (NVZ):	Yes

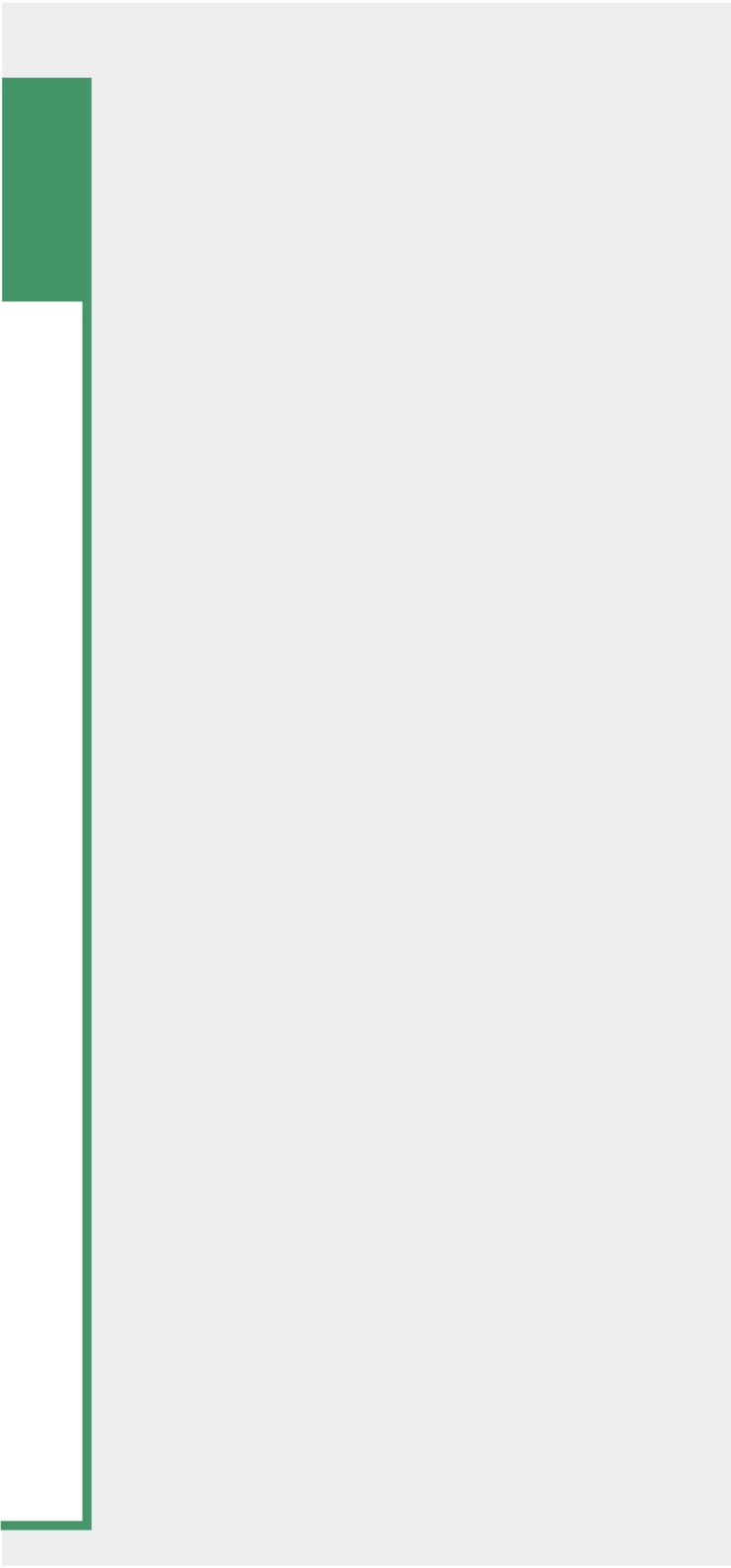
Existing land use type(s)	Area (ha)	Annual phosphorus nutrient export (kg TP)
Commercial/industrial urban land	0.01	0.01
Total:	0.01	0.01



**Annual nitrogen
nutrient export
(kg TN)**







Stage 3

User Inputs

New land use type(s)	Area (ha)	Annual phosphorus nutrient export (kg TP)
Residential urban land	0.01	0.01
Total:	0.01	0.01

**Annual nitrogen
nutrient export
(kg TN)**

0.14

0.14

Stage 4

Calculated Outputs

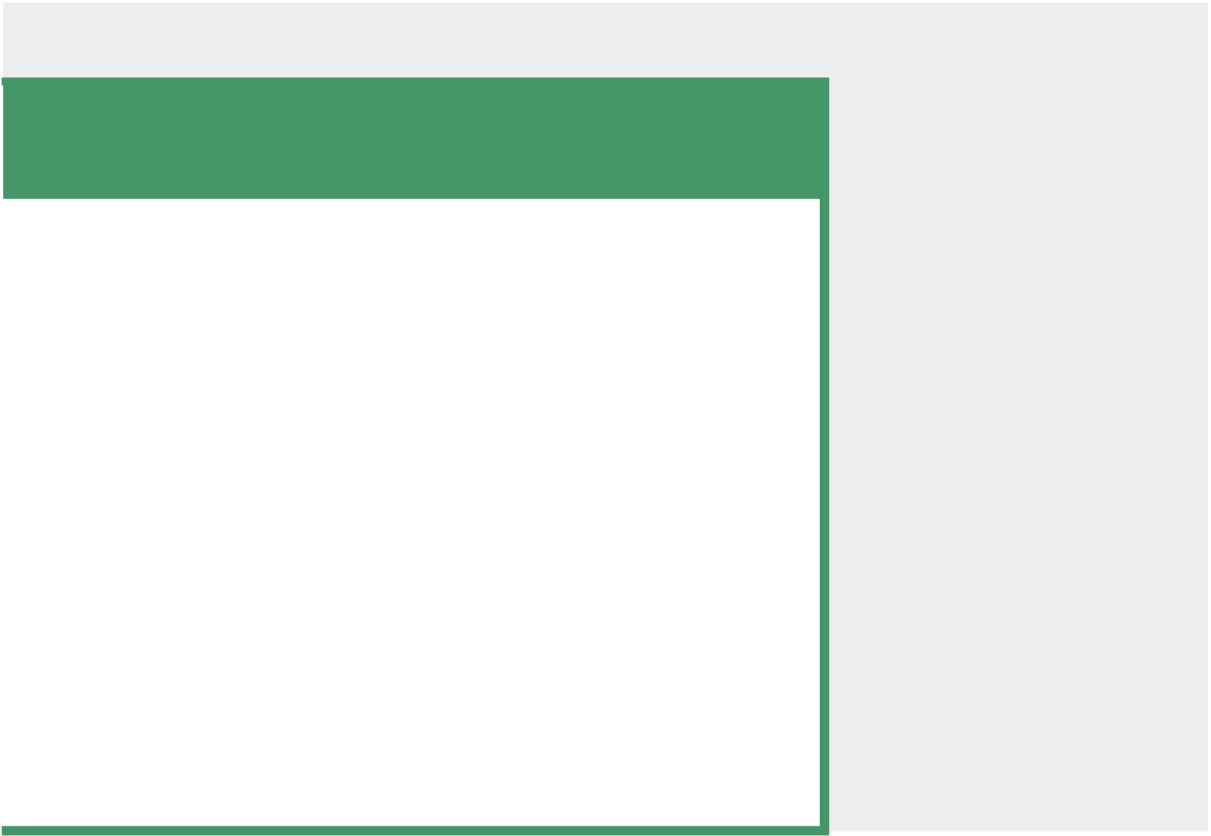
Annual Nutrient Budget

The total annual phosphorus load to mitigate is:

0.07 kg TP/year

The total annual nitrogen load to mitigate is:

3.14 kg TN/year



Look Up Tables

Table 1: Stage 1 WwTW lookup

Discharge Site Name

Chickenhall Eastleigh WwTW
Harestock WwTW
Morestead WwTW
New Alresford WwTW
Package Treatment Plant default
Septic Tank default
Package Treatment Plant user defined
Septic Tank user defined

Table 2: Stage 2 and 3 Landcover lookup

Catchment

Itchen
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Test Lower and Southampton Streams
Test Lower and Southampton Streams
Test Lower and Southampton Streams

[illegible]

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-
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-

Table 3: Stage 2 and 3 Rainfall / Urban Lookup

Rainfall band
508 - 525
525.1 - 550
550.1 - 575
575.1 - 600
600.1 - 625
625.1 - 650
650.1 - 675
675.1 - 700
700.1 - 750
750.1 - 800
800.1 - 850
850.1 - 900
900.1 - 950
950.1 - 1,000
1,000.1 - 1,100
1,100.1 - 1,200
1,200.1 - 1,400
1,400.1 - 1,600
1,600.1 - 2,000
2,000.1 - 2,400
2,400.1 - 3,000
3,000.1 - 4,000
4,000.1 - 5,500

Table 4: Stage 2 and 3 Catchment Lookup

Operational Catchment
Itchen

Table 5: Stage 2 and 3 Soil Drainage Lookup

Soilscape drainage term
Freely draining
Slightly impeded drainage
Impeded drainage
Variable
Surface Wetness
Naturally wet

Table 6: Stage 2 and 3 NVZ Lookup

NVZ
Yes

No



Phosphorus, Total as P (mg/l)	Nitrogen, Total as N (mg/l)
1	27
1	27
1	27
8	27
9.7	72.9
11.6	96.3

Farmscoper Farm Term	NVZ
Cereals	TRUE
Cereals	TRUE
Cereals	TRUE
Cereals	TRUE
General	TRUE
General	TRUE
General	TRUE
General	TRUE
Horticulture	TRUE
Horticulture	TRUE
Horticulture	TRUE
Poultry	TRUE
Poultry	FALSE
Poultry	TRUE
Dairy	TRUE
Dairy	TRUE
Lowland	TRUE
Lowland	TRUE
Lowland	TRUE
Lowland	FALSE
Lowland	TRUE
Mixed	TRUE
Mixed	TRUE
Mixed	TRUE
Cereals	TRUE
Cereals	TRUE
Cereals	TRUE

Cereals	TRUE
General	TRUE
General	TRUE
General	TRUE
General	TRUE
General	TRUE
Horticulture	TRUE
Horticulture	TRUE
Horticulture	TRUE
Horticulture	TRUE
Horticulture	TRUE
Pig	TRUE
Pig	TRUE
Pig	TRUE
Poultry	TRUE
Poultry	TRUE
Poultry	TRUE
Poultry	TRUE
Dairy	TRUE
Dairy	TRUE
Lowland	TRUE
Lowland	FALSE
Lowland	TRUE
Lowland	FALSE
Lowland	TRUE
Lowland	TRUE
Lowland	TRUE
Mixed	TRUE
Mixed	TRUE
Mixed	TRUE
Mixed	TRUE
Cereals	TRUE
Cereals	TRUE
Cereals	TRUE
General	TRUE
General	TRUE
General	TRUE
Hortic	TRUE
Hortic	TRUE
Pig	TRUE
Poultry	TRUE
Dairy	TRUE
Lowland	TRUE
Lowland	TRUE
Lowland	TRUE
Mixed	TRUE
Mixed	TRUE
-	-
-	-
-	-

-	-
-	-
-	-
-	-
-	-

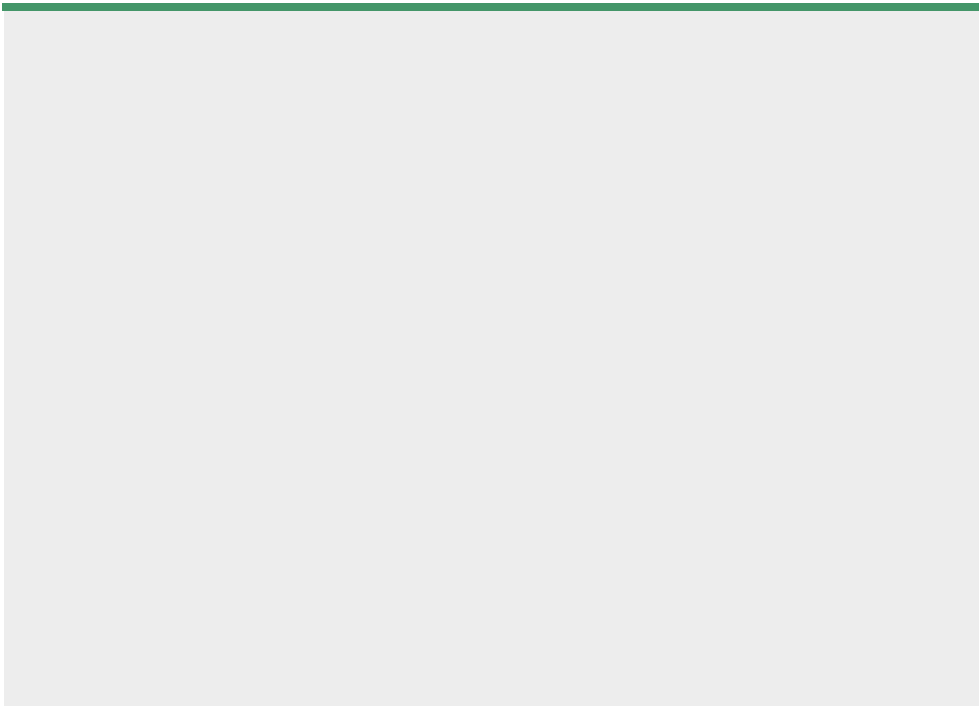
Mid	Farmscoper Equivalent
516.50	Under600
537.55	Under600
562.55	Under600
587.55	Under600
612.55	600to700
637.55	600to700
662.55	600to700
687.55	600to700
725.05	700to900
775.05	700to900
825.05	700to900
875.05	700to900
925.05	900to1200
975.05	900to1200
1050.05	900to1200
1150.05	900to1200
1300.05	1200to1500
1500.05	1200to1500
1800.05	Over1500
2200.05	Over1500
2700.05	Over1500
3500.05	Over1500
4750.05	Over1500

Farmscoper equivalent
Itchen

Farmscoper term	Definition
FreeDrain	Free Draining
DrainedAr	Drained for arable
DrainedArGr	Drained for arable and grassland
DrainedAr	Drained for arable
DrainedAr	Drained for arable
DrainedAr	Drained for arable

Farmscoper equivalent
TRUE

FALSE





Phosphorus, Total as P (mg/l), permit post 2025	Nitrogen, Total as N (mg/l), permit post 2025
0.6	27
0.25	27
1	27
8	27
9.7	72.9
11.6	96.3

Climate	Farmscoper Soil Drainage Term
700to900	FreeDrain
700to900	DrainedAr
700to900	DrainedArGr
900to1200	FreeDrain
700to900	FreeDrain
700to900	DrainedAr
700to900	DrainedArGr
900to1200	FreeDrain
700to900	FreeDrain
700to900	DrainedArGr
900to1200	FreeDrain
700to900	FreeDrain
900to1200	FreeDrain
900to1200	FreeDrain
700to900	FreeDrain
700to900	DrainedArGr
700to900	FreeDrain
700to900	DrainedAr
700to900	DrainedArGr
900to1200	FreeDrain
900to1200	FreeDrain
700to900	FreeDrain
700to900	DrainedAr
900to1200	FreeDrain
700to900	FreeDrain
700to900	DrainedAr
700to900	DrainedArGr

900to1200	DrainedAr
700to900	FreeDrain
700to900	DrainedAr
700to900	DrainedArGr
900to1200	DrainedAr
900to1200	DrainedArGr
700to900	FreeDrain
700to900	DrainedAr
700to900	DrainedArGr
900to1200	DrainedAr
900to1200	DrainedArGr
700to900	FreeDrain
700to900	DrainedArGr
900to1200	DrainedArGr
700to900	FreeDrain
700to900	DrainedArGr
900to1200	DrainedAr
900to1200	DrainedArGr
700to900	FreeDrain
700to900	DrainedArGr
700to900	FreeDrain
700to900	DrainedAr
700to900	DrainedAr
700to900	DrainedArGr
700to900	DrainedArGr
900to1200	DrainedAr
900to1200	DrainedArGr
700to900	FreeDrain
700to900	DrainedArGr
900to1200	DrainedAr
900to1200	DrainedArGr
700to900	FreeDrain
700to900	DrainedAr
900to1200	FreeDrain
700to900	FreeDrain
700to900	DrainedAr
900to1200	FreeDrain
700to900	FreeDrain
900to1200	FreeDrain
700to900	FreeDrain
700to900	FreeDrain
700to900	FreeDrain
700to900	FreeDrain
700to900	FreeDrain
700to900	FreeDrain
900to1200	FreeDrain
700to900	FreeDrain
900to1200	FreeDrain
-	Greenspace
-	Community food growing
-	Woodland

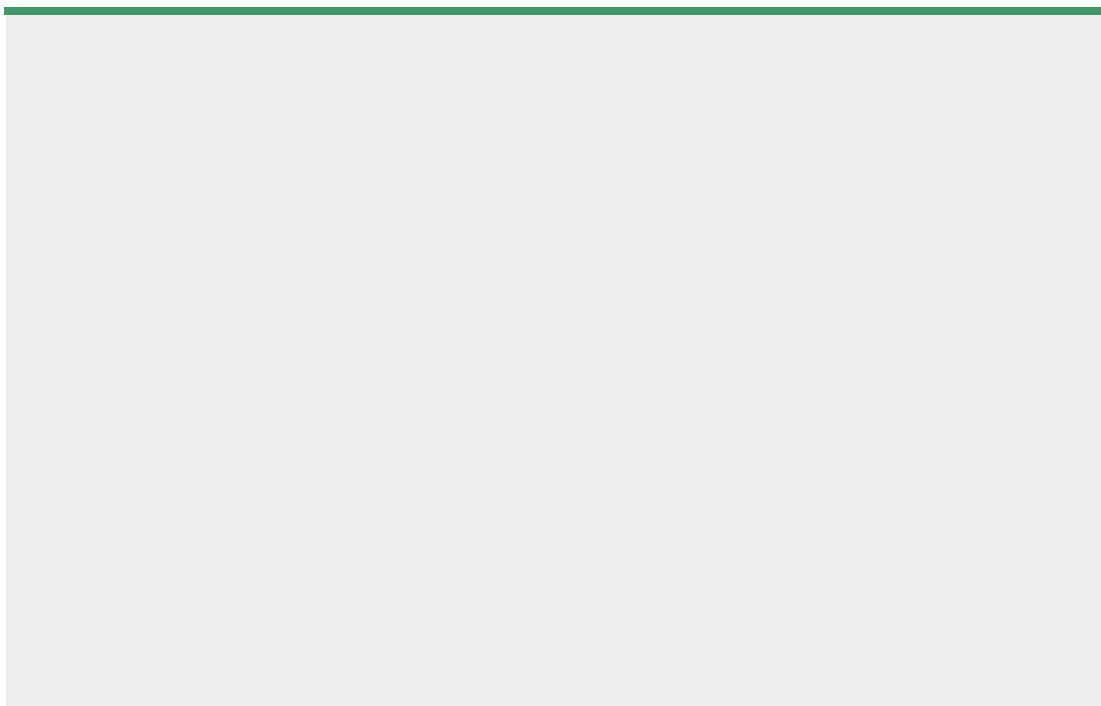
-	Shrub
-	Water
-	Residential urban land
-	Commercial/industrial urban land
-	Open urban land

P Urban Runoff Coefficient	N Urban Runoff Coefficient (kg/ha/yr)
47.37	63.95
47.61	64.19
47.86	64.44
48.09	64.67
48.29	64.87
48.45	65.03
48.59	65.17
48.69	65.27
48.79	65.37
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40
48.82	65.40

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



Nitrogen Total as N (mg/l) with deductible acceptable loading

25
25
25
25
70.9
94.3

Lookup

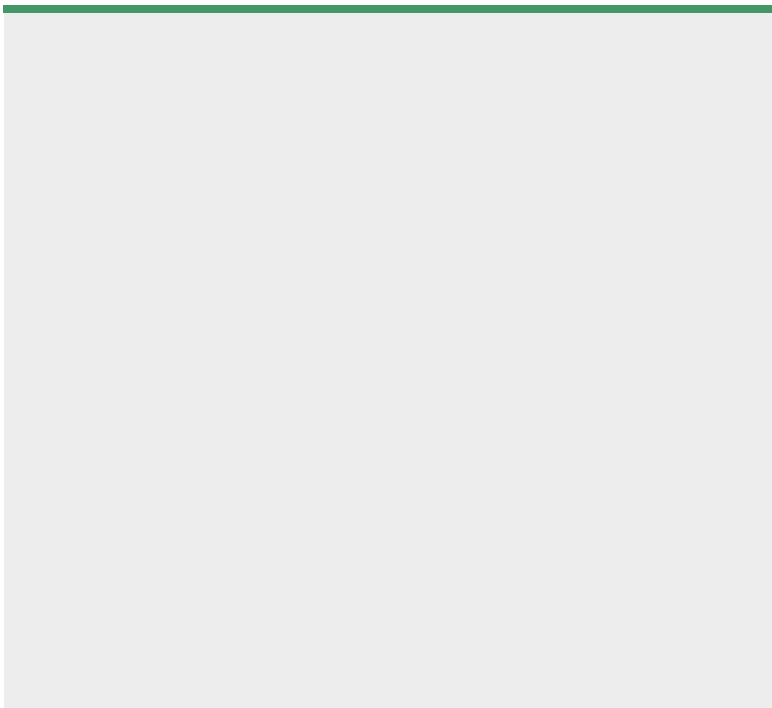
Itchen|Cereals|TRUE|700to900|FreeDrain
Itchen|Cereals|TRUE|700to900|DrainedAr
Itchen|Cereals|TRUE|700to900|DrainedArGr
Itchen|Cereals|TRUE|900to1200|FreeDrain
Itchen|General|TRUE|700to900|FreeDrain
Itchen|General|TRUE|700to900|DrainedAr
Itchen|General|TRUE|700to900|DrainedArGr
Itchen|General|TRUE|900to1200|FreeDrain
Itchen|Horticulture|TRUE|700to900|FreeDrain
Itchen|Horticulture|TRUE|700to900|DrainedArGr
Itchen|Horticulture|TRUE|900to1200|FreeDrain
Itchen|Poultry|TRUE|700to900|FreeDrain
Itchen|Poultry|FALSE|900to1200|FreeDrain
Itchen|Poultry|TRUE|900to1200|FreeDrain
Itchen|Dairy|TRUE|700to900|FreeDrain
Itchen|Dairy|TRUE|700to900|DrainedArGr
Itchen|Lowland|TRUE|700to900|FreeDrain
Itchen|Lowland|TRUE|700to900|DrainedAr
Itchen|Lowland|TRUE|700to900|DrainedArGr
Itchen|Lowland|FALSE|900to1200|FreeDrain
Itchen|Lowland|TRUE|900to1200|FreeDrain
Itchen|Mixed|TRUE|700to900|FreeDrain
Itchen|Mixed|TRUE|700to900|DrainedAr
Itchen|Mixed|TRUE|900to1200|FreeDrain
Cereals|TRUE|700to900|FreeDrain
Cereals|TRUE|700to900|DrainedAr
Cereals|TRUE|700to900|DrainedArGr

Cereals|TRUE|900to1200|DrainedAr
General|TRUE|700to900|FreeDrain
General|TRUE|700to900|DrainedAr
General|TRUE|700to900|DrainedArGr
General|TRUE|900to1200|DrainedAr
General|TRUE|900to1200|DrainedArGr
Horticulture|TRUE|700to900|FreeDrain
Horticulture|TRUE|700to900|DrainedAr
Horticulture|TRUE|700to900|DrainedArGr
Horticulture|TRUE|900to1200|DrainedAr
Horticulture|TRUE|900to1200|DrainedArGr
Pig|TRUE|700to900|FreeDrain
Pig|TRUE|700to900|DrainedArGr
Pig|TRUE|900to1200|DrainedArGr
Poultry|TRUE|700to900|FreeDrain
Poultry|TRUE|700to900|DrainedArGr
Poultry|TRUE|900to1200|DrainedAr
Poultry|TRUE|900to1200|DrainedArGr
Dairy|TRUE|700to900|FreeDrain
Dairy|TRUE|700to900|DrainedArGr
Lowland|TRUE|700to900|FreeDrain
Lowland|FALSE|700to900|DrainedAr
Lowland|TRUE|700to900|DrainedAr
Lowland|FALSE|700to900|DrainedArGr
Lowland|TRUE|700to900|DrainedArGr
Lowland|TRUE|900to1200|DrainedAr
Lowland|TRUE|900to1200|DrainedArGr
Mixed|TRUE|700to900|FreeDrain
Mixed|TRUE|700to900|DrainedArGr
Mixed|TRUE|900to1200|DrainedAr
Mixed|TRUE|900to1200|DrainedArGr
Cereals|TRUE|700to900|FreeDrain
Cereals|TRUE|700to900|DrainedAr
Cereals|TRUE|900to1200|FreeDrain
General|TRUE|700to900|FreeDrain
General|TRUE|700to900|DrainedAr
General|TRUE|900to1200|FreeDrain
Hortic|TRUE|700to900|FreeDrain
Hortic|TRUE|900to1200|FreeDrain
Pig|TRUE|700to900|FreeDrain
Poultry|TRUE|700to900|FreeDrain
Dairy|TRUE|700to900|FreeDrain
Lowland|TRUE|700to900|FreeDrain
Lowland|TRUE|700to900|DrainedAr
Lowland|TRUE|900to1200|FreeDrain
Mixed|TRUE|700to900|FreeDrain
Mixed|TRUE|900to1200|FreeDrain
|||Greenspace
|||Community food growing
|||Woodland

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

Residential P export coefficient (kg/ha/yr)

1.00
1.05
1.10
1.16
1.21
1.27
1.32
1.37
1.45
1.55
1.65
1.75
1.85
1.95
2.10
2.30
2.60
3.00
3.60
4.40
5.40
7.01
9.51



Nitrogen Total as N (mg/l), permit post 2025 with deductible acceptable loading

25
25
25
25
70.9
94.3

Phosphorus export coefficient	Nitrogen export coefficient
0.10	28.76
0.70	22.06
0.95	20.61
0.18	30.57
0.08	21.65
0.49	16.23
0.73	14.76
0.14	23.18
0.09	21.82
0.85	14.40
0.16	23.42
0.09	78.56
0.15	82.28
0.15	82.57
0.12	47.12
1.24	21.16
0.06	13.13
0.18	10.16
0.60	7.34
0.11	14.12
0.11	14.03
0.10	26.32
0.57	20.20
0.17	27.95
0.13	27.04
0.62	20.93
0.87	19.59

1.18	26.81
0.10	17.95
0.40	13.43
0.64	12.05
0.76	17.15
1.08	14.09
0.11	20.27
0.52	14.82
0.77	13.18
0.98	18.78
1.26	15.11
0.14	85.33
1.02	46.64
1.57	51.07
0.19	181.05
0.94	92.30
0.83	141.51
1.50	99.64
0.15	35.34
1.01	16.37
0.09	13.36
0.19	10.51
0.19	10.44
0.62	7.30
0.62	7.28
0.34	13.18
1.04	9.60
0.12	25.46
0.83	15.87
0.84	24.25
1.36	18.76
0.09	27.93
0.67	21.48
0.15	29.73
0.07	19.64
0.45	14.79
0.12	21.10
0.07	21.02
0.13	22.64
0.08	63.94
0.07	68.61
0.08	41.23
0.05	11.74
0.15	9.09
0.09	12.65
0.08	24.27
0.13	25.84
0.02	3.00
0.43	17.55
0.02	3.00

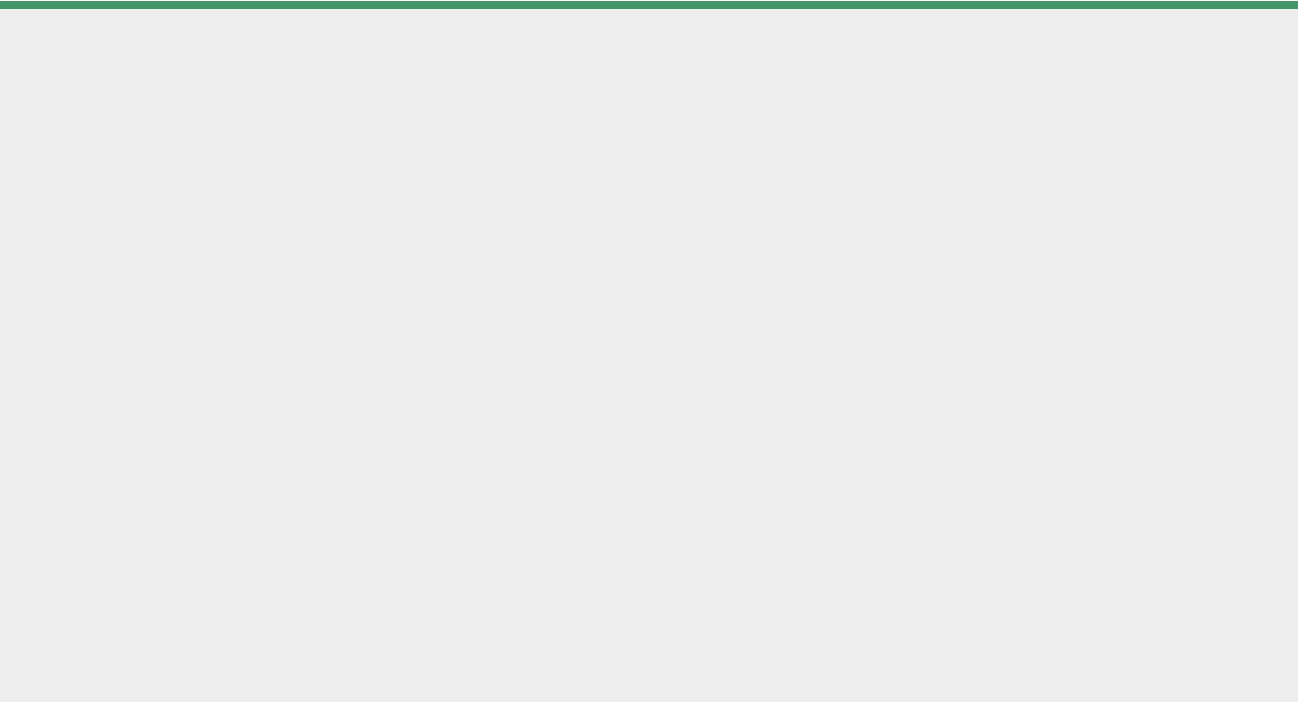
0.02	3.00
0.00	0.00
1.45	13.51
1.06	7.20
0.78	7.96

Commercial / industrial P export coefficient (kg/ha/yr)	Open urban P export coefficient (kg/ha/yr)
0.73	0.54
0.77	0.56
0.81	0.59
0.85	0.62
0.89	0.65
0.93	0.68
0.97	0.71
1.00	0.74
1.06	0.78
1.14	0.83
1.21	0.89
1.28	0.94
1.35	0.99
1.43	1.05
1.54	1.13
1.68	1.24
1.90	1.40
2.20	1.61
2.64	1.93
3.22	2.36
3.95	2.90
5.13	3.76
6.96	5.10

Table 8: Stage 2 and 3 Landcover lookup

Itchen Specific Landcover Types

Cereals
 General
 Horticulture
 Pig
 Poultry
 Dairy
 Lowland
 Mixed
 Greenspace
 Woodland
 Shrub
 Water
 Residential urban land
 Commercial/industrial urban land
 Open urban land

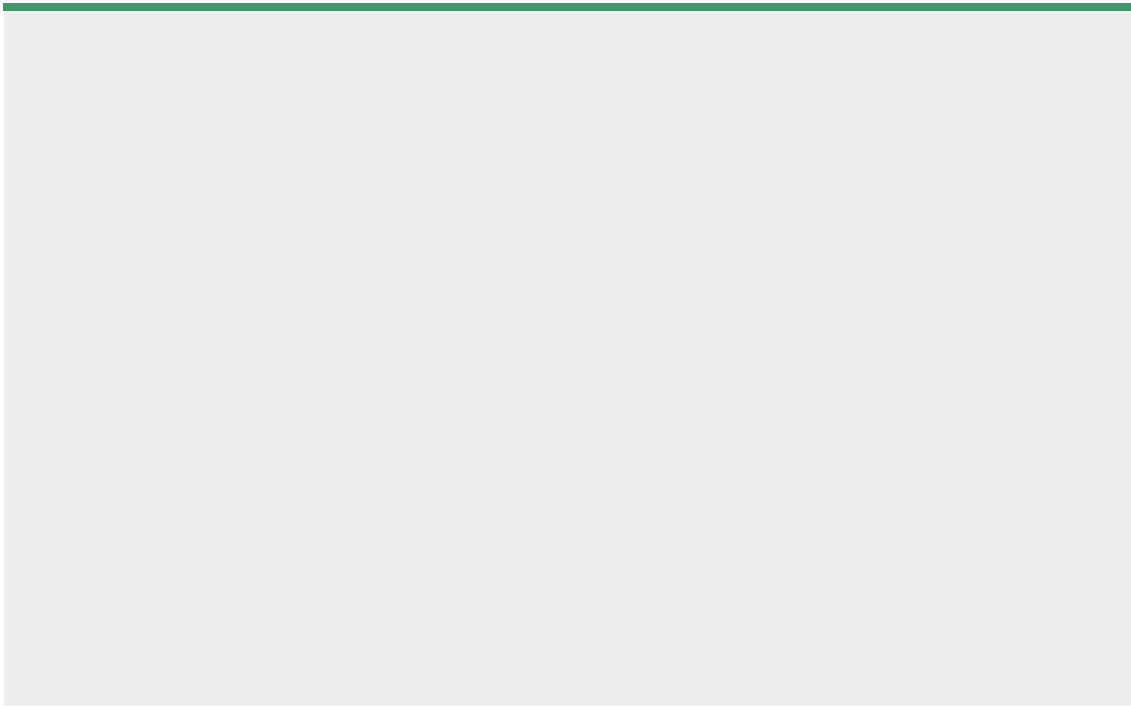




Farm Lookup	Mean P export of farm type and climate combination
Cereals 700to900	0.58
Cereals 700to900	0.58
Cereals 700to900	0.58
Cereals 900to1200	1.18
General 700to900	0.43
General 700to900	0.43
General 700to900	0.43
General 900to1200	0.66
Horticulture 700to900	0.47
Horticulture 700to900	0.47
Horticulture 900to1200	0.80
Poultry 700to900	0.52
Poultry 900to1200	0.83
Poultry 900to1200	0.83
Dairy 700to900	0.68
Dairy 700to900	0.68
Lowland 700to900	0.28
Lowland 700to900	0.28
Lowland 700to900	0.28
Lowland 900to1200	0.50
Lowland 900to1200	0.50
Mixed 700to900	0.34
Mixed 700to900	0.34
Mixed 900to1200	0.79
Cereals 700to900	0.13
Cereals 700to900	0.62
Cereals 700to900	0.87

Cereals 900to1200	1.18
General 700to900	0.10
General 700to900	0.40
General 700to900	0.64
General 900to1200	0.76
General 900to1200	1.08
Horticulture 700to900	0.11
Horticulture 700to900	0.52
Horticulture 700to900	0.77
Horticulture 900to1200	0.98
Horticulture 900to1200	1.26
Pig 700to900	0.14
Pig 700to900	1.02
Pig 900to1200	1.57
Poultry 700to900	0.19
Poultry 700to900	0.94
Poultry 900to1200	0.83
Poultry 900to1200	1.50
Dairy 700to900	0.15
Dairy 700to900	1.01
Lowland 700to900	0.09
Lowland 700to900	0.19
Lowland 700to900	0.19
Lowland 700to900	0.62
Lowland 700to900	0.62
Lowland 900to1200	0.34
Lowland 900to1200	1.04
Mixed 700to900	0.12
Mixed 700to900	0.83
Mixed 900to1200	0.84
Mixed 900to1200	1.36
Cereals 700to900	0.09
Cereals 700to900	0.67
Cereals 900to1200	0.15
General 700to900	0.07
General 700to900	0.45
General 900to1200	0.12
Hortic 700to900	0.07
Hortic 900to1200	0.13
Pig 700to900	0.08
Poultry 700to900	0.07
Dairy 700to900	0.08
Lowland 700to900	0.05
Lowland 700to900	0.15
Lowland 900to1200	0.09
Mixed 700to900	0.08
Mixed 900to1200	0.13

Residential N export coefficient (kg/ha/yr)	Commercial / industrial N export coefficient (kg/ha/yr)
9.41	5.02
9.83	5.24
10.33	5.51
10.83	5.78
11.32	6.04
11.82	6.30
12.31	6.56
12.79	6.82
13.51	7.20
14.45	7.70
15.38	8.20
16.31	8.70
17.24	9.20
18.17	9.69
19.57	10.44
21.44	11.43
24.23	12.92
27.96	14.91
33.55	17.89
41.01	21.87
50.32	26.84
65.24	34.79
88.53	47.22





Mean N export of farm type and climate combination	Mean P export of farm type	Mean N export of farm type
23.81	0.48	25.50
23.81		
23.81		
26.81		
17.55	0.36	18.96
17.55		
17.55		
18.14		
18.11	0.37	19.88
18.11		
19.10		
85.43	0.13	81.14
107.81		
107.91		
34.14	0.68	34.14
34.14		
10.21	0.21	11.76
10.21		
10.21		
12.30		
12.27		
23.26	0.28	24.82
23.26		
23.65		
27.04		
20.93		
19.59		

26.81		
17.95		
13.43		
12.05		
17.15		
14.09		
20.27		
14.82		
13.18		
18.78		
15.11		
85.33	0.91	61.01
46.64		
51.07		
181.05		
92.30		
141.51		
99.64		
35.34		
16.37		
13.36		
10.51		
10.44		
7.30		
7.28		
13.18		
9.60		
25.46		
15.87		
24.25		
18.76		
27.93		
21.48		
29.73		
19.64		
14.79		
21.10		
21.02		
22.64		
63.94		
68.61		
41.23		
11.74		
9.09		
12.65		
24.27		
25.84		

Open urban N export coefficient (kg/ha/yr)

5.55
5.80
6.09
6.38
6.68
6.97
7.25
7.54
7.96
8.52
9.06
9.61
10.16
10.71
11.54
12.64
14.28
16.48
19.78
24.17
29.67
38.45
52.19

