



## Nitrogen leaching, 2011

### Metadata

#### File Identifier

5ce1817e-52ff-ee8e-1d85-ffce4be02d63

#### Language

eng

#### Character Set

##### Character Set Code

utf8

#### Hierarchy Level

##### Scope Code

dataset

#### Hierarchy Level Name

dataset

### Contact

#### Responsible Party

##### Organisation Name

Environmental Reporting, Ministry for the Environment and Statistics New Zealand

##### Position Name

Analyst

#### Contact Info

##### Contact

##### Address

##### Address

##### Delivery Point

23 Kate Sheppard Place, PO Box 10362

##### City

Wellington 6143

##### Country

New Zealand

##### Electronic Mail Address

Environmental.Reporting@mfe.govt.nz

#### Role

Role Code  
distributor

Date Stamp  
Date  
2016-01-21

Metadata Standard Name  
ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005,  
Geographic information - Metadata

Metadata Standard Version  
1.1

Reference System Info  
Reference System  
Reference System Identifier  
Identifier  
Code  
2193

Identification Info  
Data Identification  
Citation  
Citation  
Title  
Nitrogen leaching, 2011  
Date

Abstract  
"Nitrogen is an essential nutrient for plant growth. It occurs naturally, but in agricultural systems more nitrogen is commonly added to soils as fertiliser or from livestock waste. Not all the additional nitrogen can be taken up by plants. Some nitrogen will drain (leach) as nitrate from the soil and can enter waterways, potentially causing ecological harm. The amount of nitrate leaching from the soil varies around the country, as a result of different land uses, climates, and soils. This dataset relates to the ""Geographic pattern of agricultural nitrate leaching"" measure on the Environmental Indicators, Te taiao Aotearoa website. "

Status  
Progress Code  
completed

Point Of Contact  
Responsible Party  
Organisation Name  
Environmental Reporting, Ministry for the Environment and Statistics New Zealand  
Position Name

Analyst

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### Role

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distributor

### Resource Maintenance

#### Maintenance Information

##### Maintenance And Update Frequency

##### Maintenance Frequency Code

irregular

### Resource Format

#### Format

##### Name

\*.xml

##### Version

Unknown

### Descriptive Keywords

#### Keywords

##### Keyword

New Zealand

##### Type

##### Keyword Type Code

theme

### Thesaurus Name

#### Citation

##### Title

ANZLIC Jurisdictions

##### Date

**Edition**

| Version 2.1

**Edition Date**

| Date  
| 2008-10-29

**Identifier**

| Identifier  
| Code  
| <http://asdd.ga.gov.au/asdd/profileinfo/anzlic-jurisdic.xml#anzlic-jurisdic>

**Cited Responsible Party**

| Responsible Party  
| Organisation Name  
| ANZLIC the Spatial Information Council  
  
| Role  
| Role Code  
| custodian

**Descriptive Keywords**

**Keywords**

| Keyword  
| WATER

| Keyword  
| WATER-Quality

**Type**

| Keyword Type Code  
| theme

**Thesaurus Name**

| Citation  
| Title  
| ANZLIC Search Words

**Date**

**Edition**  
| Version 2.1

**Edition Date**

| Date  
| 2008-05-16

**Identifier**

| Identifier  
| Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-theme.xml#anzlic-theme>

Cited Responsible Party

Responsible Party

Organisation Name

ANZLIC the Spatial Information Council

Role

Role Code

custodian

Resource Constraints

Legal Constraints

Use Limitation

Creative Commons Attribution 3.0 New Zealand by Ministry for the Environment

Access Constraints

Restriction Code

license

Resource Constraints

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Language

eng

Character Set

Character Set Code

utf8

Topic Category Code

environment

Extent

EX \_ Extent

Geographic Element

EX \_ Geographic Description

Identifier

Authority

Citation

Title

ANZMet Lite Country codelist

Date

Edition

Version 1.0

Edition Date

Date

2009-03-31

Identifier

Identifier

Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-country.xml#Country>

Cited Responsible Party

Responsible Party

Organisation Name

ANZLIC the Spatial Information Council

Role

Role Code

custodian

Code

nzl

Extent

EX \_ Extent

Geographic Element

EX \_ Geographic Bounding Box

166.249878342179.623191518-47.3258579684-33.9530141799

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

## Data Quality Info

### DQ \_ Data Quality

#### Scope

##### DQ \_ Scope

##### Level

##### Scope Code

dataset

##### Level Description

##### Scope Description

##### Other

dataset

## Lineage

### LI \_ Lineage

#### Statement

Source: Landcare Research Method: "The amount of nitrogen that leaches from the soil (nitrogen leachate) is a fraction of the total amount that is added to land. The amount of nitrogen leached depends on the rate of plant uptake, the amount of rainfall, and the texture and type of soil (McDowell et al, 2008). It is also affected by individual farm characteristics such as the stocking rate of grazing animals. Nitrogen leachate is defined as the mass of nitrogen drained through the soil and below the plant root zone. Typically, leached nitrogen is in the form of nitrate, which drains away easily through soil compared with other forms of nitrogen. As it leaves the plant root zone, nitrate can enter groundwater, eventually feeding into rivers, streams, lakes, and, ultimately, the sea. The nitrate-nitrogen leaching rates for the map were estimated from version 5.4 of the OVERSEER® Nutrient Budgets model (AgResearch, 2011) for combinations of soil and climate, using the method outlined in Dymond et al (2013). References: AgResearch (2011). OVERSEER®. Available from [www.overseer.org.nz](http://www.overseer.org.nz). Dymond, JR, Aussiel, A-GE, Parfitt, RL, Herzig, A, & McDowell, RW (2013). Nitrate and phosphorus leaching in New Zealand: A national perspective. *New Zealand Journal of Agricultural Research*, 56(1), 49–59, doi: 10.1080/00288233.2012.747185. McDowell, RW, Houlbrooke, DJ, Muirhead, RW, Müller, K, Shepherd, M, & Cuttle, SP (2008). *Grazed pastures and surface water quality*. New York: Nova Science Publishers. "

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