



## Nitrate-nitrogen, 2009-2013

### Metadata

#### File Identifier

807b2944-1fdc-0d14-574d-3ecb34b9271d

#### 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**

Nitrate-nitrogen, 2009-2013

**Date****Abstract**

"Small amounts of nitrogen are a natural component of healthy rivers. Nitrogen in rivers can vary due to differences in land use, climate, elevation, and geology. Nitrogen is transferred from land to water and is cycled through different forms, which can have different effects. Moderate concentrations of nitrate can cause weeds and algae to grow too fast. High concentrations of ammoniacal and nitrate nitrogen can be toxic to fish and other aquatic animals. This dataset relates to the ""Geographic pattern of nitrogen in river water"" 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

**Contact Info****Contact****Address****Address****Delivery Point**

23 Kate Sheppard Place, PO Box 10362

**City**

Wellington 6143

**Country**

New Zealand

**Electronic Mail Address**

Role

Role Code

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

Legal Constraints

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Restriction Code

copyright

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Legal Constraints

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Restriction Code

license

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

167.534694771177.881584208-46.6296622637-35.0386283946

## Distribution Info

### Distribution

#### Transfer Options

##### Digital Transfer Options

###### On Line

###### Online Resource

###### Linkage

###### URL

<https://data.mfe.govt.nz/layer/52723-nitratenitrogen-20092013/>

## Data Quality Info

### DQ \_ Data Quality

#### Scope

##### DQ \_ Scope

###### Level

###### Scope Code

dataset

###### Level Description

###### Scope Description

###### Other

dataset

## Lineage

### LI \_ Lineage

#### Statement

Source: National Institute of Water and Atmospheric Research; regional councils Method: "Nitrogen is measured in laboratories. Samples are collected from the river at fixed locations once a month, and sent to a laboratory for chemical analysis. Estimates of median nitrogen across New Zealand is based on measurements from the 16 regional councils (277, 510, and 288 river sites for total nitrogen, nitrate nitrogen, and ammoniacal nitrogen respectively), and 77 sites along 35 major rivers measured by the National Institute of Water and Atmospheric Research (NIWA). Nitrogen occurs as several forms in the environment. The following forms are reported: - Total Nitrogen (TN) is the sum of all nitrogen found in a river water sample, including organic nitrogen from plant tissue. - Nitrate is highly soluble (dissolves in water) and so can readily be used by plants and algae to help them grow. Because of this solubility it can also leach through soils very easily, particularly where soils are sandy or after heavy rainfall (McDowell et al 2008). Sources include excessive application of inorganic fertilizer, stock urine, septic tanks and leaking sewage systems. It is measured and reported as the elemental nitrogen equivalent, described as nitrate-nitrogen (NO<sub>3</sub>-N). - Ammoniacal nitrogen can be toxic at moderate to high concentrations. Elevated quantities in waterways are primarily from direct pollutant discharges such as untreated effluent. We are unable to reliably estimate trends in ammonia concentration prior to 1995 due to a subsequent change in laboratory procedures. Ammoniacal nitrogen includes readily available forms of ammonia and ammonium. These are collectively reported as the elemental nitrogen equivalent; ammoniacal nitrogen (NH<sub>4</sub>-N). This is inferred from the predominant land cover in a catchment and the surrounding landscape characteristics, such as, climate, elevation, and geology. The accuracy of the data source is of medium quality. Reference: McDowell, RW, Houlbrooke, DJ, Muirhead, RW, Müller, K, Shepherd, M, & Cuttle, SP (2008). Grazed pastures and surface water quality. New York: Nova Science Publishers."

## Metadata Constraints

### Legal Constraints

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