

# TsunamiHazard2013

## Shapefile



## Tags

Tsunami, Hazard, New Zealand

## Summary

This dataset defines the coastal sections, tsunami warning zones, and maximum expected tsunami height for return periods of 100, 500, 1000 and 2500 years at the 50th and 84th percentile of confidence. The dataset is intended to inform tsunami hazard. It derives from the model described in Power (2013).

## Description

This dataset defines the maximum expected tsunami height (maximum amplitude) for return periods of 100, 500, 1000 and 2500 years at the 50th and 84th percentile of confidence, as estimated by the model described in Power (2013). The dataset also defines the coastal sections that were used for this modelling. The maximum expected tsunami heights are presented for each of these coastal sections.

Please note that the maximum expected tsunami height will typically only occur at one location within each coastal section. It is a conservative (pessimistic) assumption if this height is used throughout the section.

## Credits

GNS Science

## Use limitations

This data has been prepared by the Institute of Geological and Nuclear Sciences Limited (GNS Science) exclusively for and under contract to the Ministry of Civil Defence and Emergency Management. Unless otherwise agreed in writing by GNS Science, GNS Science accepts no responsibility for any use of, or reliance on any contents of this data by any person other than the Ministry of Civil Defence and Emergency Management and shall not be liable to any person other than the Ministry of Civil Defence and Emergency Management, on any ground, for any loss, damage or expense arising from such use or reliance.

This data is intended to be used in conjunction with Power (2013), and with acknowledgement of the limitations of the methodology expressed there (and in particular those on page 169 of that report).

## Extent

<b>West</b>	-177.141870	<b>East</b>	178.776876
<b>North</b>	-34.213102	<b>South</b>	-47.471046

## Scale Range

<b>Maximum (zoomed in)</b>	1:5,000
<b>Minimum (zoomed out)</b>	1:150,000,000

## Topics and Keywords

THEMES OR CATEGORIES OF THE RESOURCE    geoscientificInformation, oceans

\* CONTENT TYPE    Downloadable Data

EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION    No

PLACE KEYWORDS    New Zealand

PLACE KEYWORDS    Chatham Islands

TEMPORAL KEYWORDS    2013

THEME KEYWORDS    tsunami

THEME KEYWORDS    probabilistic

THEME KEYWORDS    hazard

THEME KEYWORDS    national

## Citation

\* TITLE    TsunamiHazard2013

PUBLICATION DATE    2016-05-01 00:00:00

PRESENTATION FORMATS    \* digital map

### OTHER CITATION DETAILS

Power, W.L. (compiler). 2013. Review of Tsunami Hazard in New Zealand (2013 Update), GNS Science Consultancy Report 2013/131. 222 p.

## Citation Contacts

### RESPONSIBLE PARTY

INDIVIDUAL'S NAME    William Power

ORGANIZATION'S NAME    GNS Science

CONTACT'S POSITION    Senior Geophysicist - Scientific Programmer

CONTACT'S ROLE    point of contact

## Resource Details

DATASET LANGUAGES    \* English (NEW ZEALAND)

DATASET CHARACTER SET    utf8 - 8 bit UCS Transfer Format

SPATIAL REPRESENTATION TYPE    \* vector

\* PROCESSING ENVIRONMENT    Version 6.2 (Build 9200); Esri ArcGIS 10.3.1.4959

### CREDITS

GNS Science

#### ARCGIS ITEM PROPERTIES

\* NAME TsunamiHazard2013  
\* LOCATION  
file:///\\corp.gns.cri.nz\\gnsshared\\tsunami\\TsunamiZones\\TsunamiZones.gdb  
\* ACCESS PROTOCOL Local Area Network

## Extents

#### EXTENT

##### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -177.141870  
\* EAST LONGITUDE 178.776876  
\* NORTH LATITUDE -34.213102  
\* SOUTH LATITUDE -47.471046  
\* EXTENT CONTAINS THE RESOURCE Yes

#### EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE -177.141870  
\* EAST LONGITUDE 178.776876  
\* SOUTH LATITUDE -47.471046  
\* NORTH LATITUDE -34.213102  
\* EXTENT CONTAINS THE RESOURCE Yes

## Resource Constraints

#### CONSTRAINTS

##### LIMITATIONS OF USE

This data has been prepared by the Institute of Geological and Nuclear Sciences Limited (GNS Science) exclusively for and under contract to the Ministry of Civil Defence and Emergency Management. Unless otherwise agreed in writing by GNS Science, GNS Science accepts no responsibility for any use of, or reliance on any contents of this data by any person other than the Ministry of Civil Defence and Emergency Management and shall not be liable to any person other than the Ministry of Civil Defence and Emergency Management, on any ground, for any loss, damage or expense arising from such use or reliance.

This data is intended to be used in conjunction with Power (2013), and with acknowledgement of the limitations of the methodology expressed there (and in particular those on page 169 of that report).

## Spatial Reference

#### ARCGIS COORDINATE SYSTEM

\* TYPE Geographic  
\* GEOGRAPHIC COORDINATE REFERENCE GCS\_WGS\_1984  
\* COORDINATE REFERENCE DETAILS  
GEOGRAPHIC COORDINATE SYSTEM  
WELL-KNOWN IDENTIFIER 4326  
X ORIGIN -400  
Y ORIGIN -400  
XY SCALE 999999999.99999988

Z ORIGIN -100000  
Z SCALE 10000  
M ORIGIN -100000  
M SCALE 10000  
XY TOLERANCE 8.983152841195215e-009  
Z TOLERANCE 0.001  
M TOLERANCE 0.001  
HIGH PRECISION true  
LEFT LONGITUDE -180  
LATEST WELL-KNOWN IDENTIFIER 4326  
WELL-KNOWN TEXT  
GEOGCS["GCS\_WGS\_1984",DATUM["D\_WGS\_1984",SPHEROID["WGS\_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],AUTHORITY["EPSG",4326]]

REFERENCE SYSTEM IDENTIFIER

\* VALUE 4326  
\* CODESPACE EPSG  
\* VERSION 8.6.2

## Spatial Data Properties

VECTOR

\* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME TsunamiHazard2013  
\* OBJECT TYPE composite  
\* OBJECT COUNT 268

ARCGIS FEATURE CLASS PROPERTIES

FEATURE CLASS NAME TsunamiHazard2013  
\* FEATURE TYPE Simple  
\* GEOMETRY TYPE Polygon  
\* HAS TOPOLOGY FALSE  
\* FEATURE COUNT 268  
\* SPATIAL INDEX TRUE  
\* LINEAR REFERENCING FALSE

## Distribution

DISTRIBUTION FORMAT

NAME Shapefile

## Fields

DETAILS FOR OBJECT TsunamiHazard2013 ►

\* TYPE Feature Class  
\* ROW COUNT 268

FIELD OBJECTID

- \* ALIAS OBJECTID
- \* DATA TYPE OID
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0
- \* FIELD DESCRIPTION  
Internal feature number.
- \* DESCRIPTION SOURCE  
Esri
- \* DESCRIPTION OF VALUES  
Sequential unique whole numbers that are automatically generated.

FIELD SHAPE

- \* ALIAS SHAPE
- \* DATA TYPE Geometry
- \* WIDTH 0
- \* PRECISION 0
- \* SCALE 0
- \* FIELD DESCRIPTION  
Feature geometry.
- \* DESCRIPTION SOURCE  
Esri
- \* DESCRIPTION OF VALUES  
Coordinates defining the features.

FIELD SECTN\_CODE

- \* ALIAS Section Code
- \* DATA TYPE SmallInteger
- \* WIDTH 2
- \* PRECISION 0
- \* SCALE 0
- FIELD DESCRIPTION  
Code number of coastal section. Coastal sections are 20 km subdivisions of the warning zones. Hazard data is provided for each coastal section in separate fields.
- DESCRIPTION SOURCE  
GNS Science

FIELD SECTN\_NAME

- \* ALIAS Section Name
- \* DATA TYPE String
- \* WIDTH 50
- \* PRECISION 0
- \* SCALE 0
- FIELD DESCRIPTION  
Name of coastal section.
- DESCRIPTION SOURCE  
GNS Science

FIELD WZONE\_CODE

- \* ALIAS Warning Zone Code
- \* DATA TYPE SmallInteger

\* WIDTH 2  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

Warning zone code number. Warning zones comprise several coastal sections.

DESCRIPTION SOURCE

GNS Science

FIELD WZONE\_NAME

\* ALIAS Warning Zone Name  
\* DATA TYPE String  
\* WIDTH 100  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

Warning zone name.

DESCRIPTION SOURCE

GNS Science

FIELD H100y50p

\* ALIAS Tsunami Height (Maximum Amplitude) in metres at 50th percentile at 100 year return period  
\* DATA TYPE Single  
\* WIDTH 4  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

The maximum expected tsunami height (maximum amplitude) in metres at the 100 year return period and at the 50th percentile of confidence. See Power (2013) for details.

DESCRIPTION SOURCE

GNS Science

FIELD H500y50p

\* ALIAS Tsunami Height (Maximum Amplitude) in metres at 50th percentile at 500 year return period  
\* DATA TYPE Single  
\* WIDTH 4  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

The maximum expected tsunami height (maximum amplitude) in metres at the 500 year return period and at the 50th percentile of confidence. See Power (2013) for details.

DESCRIPTION SOURCE

GNS Science

FIELD H1000y50p

\* ALIAS Tsunami Height (Maximum Amplitude) in metres at 50th percentile at 1000 year return period  
\* DATA TYPE Single  
\* WIDTH 4

\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

The maximum expected tsunami height (maximum amplitude) in metres at the 1000 year return period and at the 50th percentile of confidence. See Power (2013) for details.

DESCRIPTION SOURCE

GNS Science

FIELD H2500y50p

\* ALIAS Tsunami Height (Maximum Amplitude) in metres at 50th percentile at 2500 year return period

\* DATA TYPE Single

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

The maximum expected tsunami height (maximum amplitude) in metres at the 2500 year return period and at the 50th percentile of confidence. See Power (2013) for details.

DESCRIPTION SOURCE

GNS Science

FIELD H100y84p

\* ALIAS Tsunami Height (Maximum Amplitude) in metres at 84th percentile at 100 year return period

\* DATA TYPE Single

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

The maximum expected tsunami height (maximum amplitude) in metres at the 100 year return period and at the 84th percentile of confidence. See Power (2013) for details.

DESCRIPTION SOURCE

GNS Science

FIELD H500y84p

\* ALIAS Tsunami Height (Maximum Amplitude) in metres at 84th percentile at 500 year return period

\* DATA TYPE Single

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

The maximum expected tsunami height (maximum amplitude) in metres at the 500 year return period and at the 84th percentile of confidence. See Power (2013) for details.

DESCRIPTION SOURCE

GNS Science

#### FIELD H1000y84p

- \* **ALIAS** Tsunami Height (Maximum Amplitude) in metres at 84th percentile at 1000 year return period
- \* **DATA TYPE** Single
- \* **WIDTH** 4
- \* **PRECISION** 0
- \* **SCALE** 0

#### FIELD DESCRIPTION

The maximum expected tsunami height (maximum amplitude) in metres at the 1000 year return period and at the 84th percentile of confidence. See Power (2013) for details.

#### DESCRIPTION SOURCE

GNS Science

#### FIELD H2500y84p

- \* **ALIAS** Tsunami Height (Maximum Amplitude) in metres at 84th percentile at 2500 year return period
- \* **DATA TYPE** Single
- \* **WIDTH** 4
- \* **PRECISION** 0
- \* **SCALE** 0

#### FIELD DESCRIPTION

The maximum expected tsunami height (maximum amplitude) in metres at the 2500 year return period and at the 84th percentile of confidence. See Power (2013) for details.

#### DESCRIPTION SOURCE

GNS Science

#### FIELD SHAPE\_Length

- \* **ALIAS** SHAPE\_Length
- \* **DATA TYPE** Double
- \* **WIDTH** 8
- \* **PRECISION** 0
- \* **SCALE** 0
- \* **FIELD DESCRIPTION**

Length of feature in internal units.

#### \* DESCRIPTION SOURCE

Esri

#### \* DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.

#### FIELD SHAPE\_Area

- \* **ALIAS** SHAPE\_Area
- \* **DATA TYPE** Double
- \* **WIDTH** 8
- \* **PRECISION** 0
- \* **SCALE** 0
- \* **FIELD DESCRIPTION**

Area of feature in internal units squared.

#### \* DESCRIPTION SOURCE

Esri

\* DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.

## Metadata Details

\* METADATA LANGUAGE English (NEW ZEALAND)

\* METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER f21f7731-b34c-4ea8-937c-bc6c2ce50527

SCOPE OF THE DATA DESCRIBED BY THE METADATA \* dataset

SCOPE NAME \* dataset

\* LAST UPDATE 2016-09-29

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

METADATA STYLE ISO 19139 Metadata Implementation Specification

STANDARD OR PROFILE USED TO EDIT METADATA ISO19139

CREATED IN ARCGIS FOR THE ITEM 2016-09-29 12:48:52

LAST MODIFIED IN ARCGIS FOR THE ITEM 2016-09-29 14:47:48

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2016-09-29 14:47:48

## Metadata Contacts

METADATA CONTACT

INDIVIDUAL'S NAME Biljana Lukovic

ORGANIZATION'S NAME GNS Science

CONTACT'S POSITION GIS Analyst

CONTACT'S ROLE point of contact

## Metadata Constraints

CONSTRAINTS

LIMITATIONS OF USE

This data has been prepared by the Institute of Geological and Nuclear Sciences Limited (GNS Science) exclusively for and under contract to the Ministry of Civil Defence and Emergency Management. Unless otherwise agreed in writing by GNS Science, GNS Science accepts no responsibility for any use of, or reliance on any contents of this data by any person other than the Ministry of Civil Defence and Emergency Management and shall not be liable to any person other than the Ministry of Civil Defence and Emergency Management, on any ground, for any loss, damage or expense arising from such use or reliance.