

Product:

**PSMA** | G-NAF®

Prepared:

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# G-NAF

## Data Release Report

May 2018

## Revision History

Date	Version	Change	Coordinator
May 2018	1.0	Initial Version	Dean Coslett

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# Introduction

G-NAF (Geocoded National Address File) is the authoritative physical address index for Australia. It contains the state, suburb, street, number and coordinate reference or geocode for street addresses in Australia.

G-NAF uses existing and recognised address sources (referred to as contributors) including the state and territory government land records, as well as address data from the commonwealth government and other national sources. For more information please refer to the G-NAF Product Description.

## Document Purpose

This document provides a description of the key issues encountered and production changes applied during the assembly of this update. In addition, overarching release statistics and general change volumes are also included. This document should be read in conjunction with the accompanying G-NAF Product Description.

## Audience

This document is made available to PSMA staff, data contributors, direct clients and end users. It is intended to be used by business managers, data managers and analysts as a guide and reference to understanding the content and variations within a data release.

## Support

### **PSMA Australia Support**

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## Overview

- Nationally, this update of G-NAF shows an increase of 72,354 addresses overall which equates to an increase of 0.50%. The total number of addresses in G-NAF now stands at 14,443,974 of which 13,824,379 or 95.71% are principal.
- Confidence levels nationally show an improvement in confidence level 2 addresses which have increased by 52,520 and now represent 66.17% of principal addresses. Confidence 1 addresses have increased 17,558 and now represent 14.71% and confidence 0 addresses have decreased from 19.18% to 19.11% of addresses.
- There was an increase of 74,586 address level, a drop of 617 in street locality addresses and an increase of 371 in locality level addresses. The reliability of principal addresses in G-NAF is now made up of 96.40% address level, 3.40% street locality addresses and 0.20% locality addresses.

### Updates

- Updates and quality improvements have been undertaken for the May 2018 release of G-NAF, these include:
  - changes to Localities names and boundaries
  - Principal/Alias relationships for Queensland addresses
- There has also been a series of minor updates to processing of addresses where minor anomalies have been identified and in each case affects a small number of addresses in a localised area.

### Issues

- changes occurring to LEGAL\_PARCEL\_ID
- NSW Localities

### Future Considerations

- Change to model with two additional tables called ADDRESS\_FEATURE and CHANGE\_CODE\_AUT
- Additional address contributions to be utilised for improvements to G-NAF

# Updates and Issues

## Updates

### Changes to Localities names and boundaries

The regular changes to locality names and boundaries will impact changes to the addresses. Addresses where their locality name changes for an address will as a consequence have their ADDRESS\_DETAIL\_PID change. Please refer to the release report for the Administrative Boundaries product for specific changes occurring to localities.

### Queensland Principal/Alias relationships

Principal/Alias relationships were created for some 1800 addresses across the following localities:

BOULIA  
CAIRNS CITY  
CALOUNDRA  
NEWSTEAD  
PALM COVE  
SURFERS PARADISE  
WEST END

## Issue

### Changes occurring to LEGAL\_PARCEL\_ID

Previous release reports have noted that some addresses have changed their LEGAL\_PARCEL\_ID. In some cases this is to be expected as properties are subdivided and other changes to jurisdictional addresses occur. However, there other changes resulting from issues in the updating process that should not be occurring. Whilst incorrect changes have been minimised over the past few updates, it is continuing to occur in a relatively small number of cases. Further work is being undertaken to resolve this issue.

### NSW Localities

Recent changes to a small number of locality boundaries in NSW affecting some 350 addresses were not implemented in this update of G-NAF. However, to minimise the impact of this street locality aliases have been created. The localities impacted were:

ELEEBANA – 1 address  
GUNNING GAP – 18 addresses  
MOUNT HUTTON - 149  
NARELLAN - 172 addresses  
NAMINA - 5 addresses  
PEMBROOKE – 1 address  
TINGIRA HEIGHTS – 1 address  
YASS RIVER – 9 addresses

# Summary Statistics

**Note:** The statistics below do not include “retired” addresses (i.e. Confidence =-1).

## Geocode Reliability of Principal Addresses Only

Reliability	No of Addresses	Percentage	Change since February 2018
1 (GPS derived address level)	0	0.00%	0
2 (Within address site boundary)	13,169,143	95.26%	72,963
3 (gap geocoded)	157,055	1.14%	1,623
4 (street level)	470,387	3.40%	-617
5 (locality level)	27,794	0.20%	371
6 (topo level)	0	0.00%	0
No geocode	0	0.00%	0
<b>Total</b>	<b>13,824,379</b>	<b>100.00%</b>	<b>74,340</b>

## Address Confidence Levels of Principal Addresses Only

Confidence level	No of Addresses	Percentage	Change since February 2018
Addresses with a Confidence of 0	2,642,145	19.11%	4,262
Addresses with a Confidence of 1	2,034,111	14.71%	17,558
Addresses with a Confidence of 2	9,148,123	66.17%	52,520
<b>Total</b>	<b>13,824,379</b>	<b>100.00%</b>	<b>74,340</b>

### Geocode Reliability of Addresses (Principals and Aliases)

Reliability	No of Addresses	Percentage	Change since February 2018
1 (GPS derived address level)	0	0.00%	0
2 (Within address site boundary)	13,784,869	95.44%	71,190
3 (gap geocoded)	158,258	1.10%	1,528
4 (street level)	473,027	3.27%	-732
5 (locality level)	27,820	0.19%	368
6 (topo level)	0	0.00%	0
No geocode	0	0.00%	0
<b>Total</b>	<b>14,443,974</b>	<b>100.00%</b>	<b>72,354</b>

### Address Confidence Levels of Addresses (Principals and Aliases)

Confidence level	No of Addresses	Percentage	Change since February 2018
Addresses with a Confidence of 0	3,067,021	21.23%	2,676
Addresses with a Confidence of 1	2,218,185	15.36%	18,273
Addresses with a Confidence of 2	9,158,768	63.41%	51,405
<b>Total</b>	<b>14,443,974</b>	<b>100.00%</b>	<b>72,354</b>



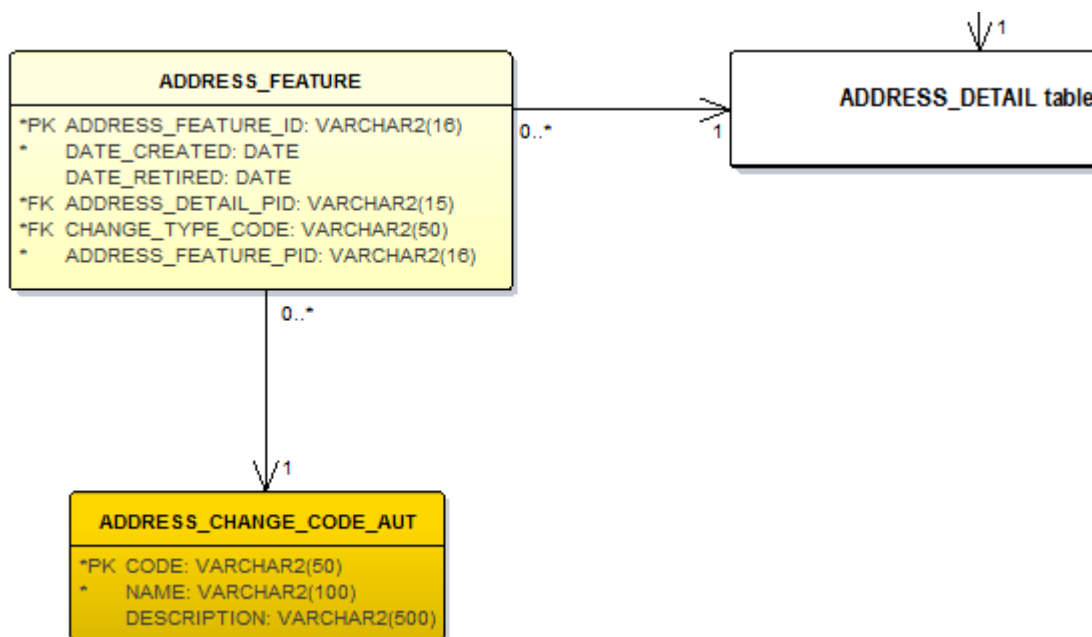
# Future Considerations

## Tracking Address Changes in G-NAF

The most commonly used persistent identifier to identify an address in G-NAF is the ADDRESS\_DETAIL\_PID. This identifier reflects the uniqueness of each address label, rather than an addressable object (e.g. a property) that the address label represents. Currently in G-NAF, the address label representing an addressable object that can change without any change occurring to that addressable object (e.g. it represents the same property) and after 12 months (4 releases) of the label not being supplied from contributors (-1 confidence) the address is removed from G-NAF. The allocation of a new address label (and ADDRESS\_DETAIL\_PID) in these circumstances is considered an issue for users seeking to track actual new addresses (i.e. representing new addressable objects) entering G-NAF.

PSMA has investigated the possibility of a change to the G-NAF structure that would assist users in identifying changes. The change requires the inclusion of a new tables to the G-NAF data model rather than changes to existing tables. PSMA will make the change to include two additional tables for the August 2018 release. In addition, the -1 confidence level addresses will remain in G-NAF and not be removed from G-NAF after 4 releases.

The data model will include two additional tables called ADDRESS\_FEATURE and ADDRESS\_CHANGE\_CODE\_AUT as shown in the diagram below:



More information on the tables are in Annex B.

## Additional Address Contributions

PSMA has reviewed additional address sources for their possible inclusion into G-NAF. Initial work will be focused on minimising duplicate addresses, through the management of the principal/alias relationships based on the additional supplies of address data starting in the August 2018 release.

# Annex A – Detailed Statistics by Jurisdiction

The following tables show the changes that occur to principal only addresses between the new release (May 2018) and previous release (February 2018) for each jurisdiction. The table shows information on the change in the two far right columns, one shows the count difference between two releases (No of Addresses ) and the other the percentage of change based on the total of all principal addresses only for the jurisdiction (Address %). As such, these two columns are not directly related to each other, but show the improvements that generally occur to addresses with increased confidence and reliability levels over time. The statistics below do not include “retired” addresses (i.e. Confidence = -1).

## Victoria

Victorian addresses represent 25.23% of the national total. Victoria has had an increase of 21,575 addresses for this release. Both address reliability and confidence show improvement in Victoria for the May 2018 release.

Confidence - Vic	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	545,103	15.63%	545,133	15.73%	-30	-0.10%
Addresses with a Confidence of 1	521,868	14.96%	517,668	14.93%	4,200	0.03%
Addresses with a Confidence of 2	2,421,002	69.41%	2,403,597	69.34%	17,405	0.07%

Level Geocoded - Vic	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	3,432,579	98.41%	3,410,191	98.38%	22,388	0.03%
Addresses geocoded to Street level	51,835	1.49%	52,600	1.52%	-765	-0.03%
Addresses geocoded to Locality level	3,559	0.10%	3,607	0.10%	-48	0.00%

## New South Wales

New South Wales addresses represent 30.97% of the national total. There was an increase of 25,886 principal addresses for NSW. Address reliability shows improvement for the May 2018 release in NSW while the address confidence ratios remain largely unchanged from the February release.

Confidence - NSW	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	828,869	19.36%	824,090	19.37%	4,779	-0.01%
Addresses with a Confidence of 1	675,852	15.79%	671,536	15.78%	4,316	0.01%
Addresses with a Confidence of 2	2,776,140	64.85%	2,759,349	64.85%	16,791	0.00%

Level Geocoded - NSW	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	4,086,512	95.46%	4,058,682	95.39%	27,830	0.07%
Addresses geocoded to Street level	183,091	4.28%	185,002	4.35%	-1,911	-0.07%
Addresses geocoded to Locality level	11,258	0.26%	11,291	0.27%	-33	0.00%

## South Australia

South Australian addresses represent 7.73% of the national total. South Australia has had an increase of 4,150 principal addresses. Address confidence shows improvement for South Australia in the May 2018 release however the street level address reliability has increased at the expense of property addresses.

Confidence - SA	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	246,186	23.03%	246,052	23.11%	134	-0.08%
Addresses with a Confidence of 1	139,508	13.05%	138,756	13.03%	752	0.02%
Addresses with a Confidence of 2	683,146	63.91%	679,882	63.86%	3,264	0.06%

Level Geocoded - SA	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	1,026,024	95.99%	1,023,439	96.13%	2,585	-0.13%
Addresses geocoded to Street level	40,167	3.76%	38,570	3.62%	1,597	0.14%
Addresses geocoded to Locality level	2,649	0.25%	2,681	0.25%	-32	0.00%

## Tasmania

Tasmanian addresses represent 2.38% of the national total. There was an increase of 1,214 principal addresses for Tasmania in the May 2018 release. Address reliability shows improvement while address confidence 2 levels has fallen slightly.

Confidence - Tas	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	57,370	17.46%	57,198	17.47%	172	-0.01%
Addresses with a Confidence of 1	44,263	13.47%	43,921	13.42%	342	0.05%
Addresses with a Confidence of 2	226,959	69.07%	226,259	69.11%	700	-0.04%

Level Geocoded - Tas	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	310,367	94.45%	309,064	94.41%	1,303	0.05%
Addresses geocoded to Street level	17,319	5.27%	17,481	5.34%	-162	-0.07%
Addresses geocoded to Locality level	906	0.28%	833	0.25%	73	0.02%

## Western Australia

Western Australian addresses represent 10.37% of the national total. Western Australia has had an increase of some 3,737 principal addresses. Both confidence and address reliability show improvement for the May 2018 release.

Confidence - WA	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	244,256	17.04%	245,232	17.15%	-976	-0.11%
Addresses with a Confidence of 1	172,189	12.01%	171,233	11.97%	956	0.04%
Addresses with a Confidence of 2	1,017,242	70.95%	1,013,485	70.88%	3,757	0.08%

Level Geocoded - WA	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	1,386,990	96.74%	1,382,637	96.69%	4,353	0.05%
Addresses geocoded to Street level	44,312	3.09%	44,943	3.14%	-631	-0.05%
Addresses geocoded to Locality level	2,385	0.17%	2,370	0.17%	15	0.00%

## ACT

ACT addresses represent 1.56% of the national total. There was an increase of 1,315 principal addresses in ACT. Both address confidence and address reliability show a slight improvement for the May 2018 release.

Confidence - ACT	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	28,688	13.27%	29,016	13.50%	-328	-0.23%
Addresses with a Confidence of 1	17,026	7.87%	16,625	7.74%	401	0.14%
Addresses with a Confidence of 2	170,503	78.86%	169,261	78.76%	1,242	0.10%

Level Geocoded - ACT	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	214,688	99.29%	213,367	99.29%	1,321	0.01%
Addresses geocoded to Street level	1,529	0.71%	1,535	0.71%	-6	-0.01%
Addresses geocoded to Locality level	0	0.00%	0	0.00%	0	0.00%

## Queensland

Queensland addresses represent 20.96% of the national total. There was an increase of some 16,076 principal addresses in Queensland. Despite increases in property addresses and confidence 2 addresses, the May 2018 release shows a slight reduction in the ratios of both in Queensland.

Reversing the trend of the November 2017 release, Queensland now shows a slightly improving trend for both address confidence and reliability in the May 2018 release.

Confidence - QLD	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	664,659	22.94%	664,311	23.05%	348	-0.12%
Addresses with a Confidence of 1	437,321	15.09%	430,739	14.95%	6,582	0.14%
Addresses with a Confidence of 2	1,795,605	61.97%	1,786,459	62.00%	9,146	-0.03%

Level Geocoded - QLD	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	2,765,604	95.45%	2,750,973	95.47%	14,631	-0.02%
Addresses geocoded to Street level	125,492	4.33%	124,431	4.32%	1,061	0.01%
Addresses geocoded to Locality level	6,489	0.22%	6,105	0.21%	384	0.01%

## Northern Territory

Northern Territory addresses represent 0.78% of the national total. Northern Territory had an increase of 129 addresses. Address confidence reveals a slight improvement to confidence 2 addresses while the property address have fallen for the May 2018 release.

Confidence - NT	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	25,990	24.17%	25,827	24.10%	163	0.06%
Addresses with a Confidence of 1	24,472	22.76%	24,463	22.83%	9	-0.07%
Addresses with a Confidence of 2	57,082	53.08%	56,867	53.07%	215	0.01%

Level Geocoded - NT	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	100,754	93.69%	100,579	93.86%	175	-0.18%
Addresses geocoded to Street level	6,336	5.89%	6,136	5.73%	200	0.17%
Addresses geocoded to Locality level	454	0.42%	442	0.41%	12	0.01%

## Other Territories

Other territories addresses represent 0.02% of the national total. Address confidence and address reliability are unchanged for the May 2018 release.

Confidence - OT	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses with a Confidence of 0	1,024	33.25%	1,024	33.25%	0	0.00%
Addresses with a Confidence of 1	1,612	52.34%	1,612	52.34%	0	0.00%
Addresses with a Confidence of 2	444	14.42%	444	14.42%	0	0.00%

Level Geocoded - OT	Current Release		Previous Release		Change	
	No of Addresses	Address %	No of Addresses	Address %	No of Addresses	Address %
Addresses geocoded to Property level	2,680	87.01%	2,680	87.01%	0	0.00%
Addresses geocoded to Street level	306	9.94%	306	9.94%	0	0.00%
Addresses geocoded to Locality level	94	3.05%	94	3.05%	0	0.00%



## Annex B

The two new tables for inclusion in August 2018 release are as follows:

### *ADDRESS\_FEATURE*

Name	Data Type	Description	Prim Key	Man	F K TABLE	F K Col	10 Char Alias
<b>ADDRESS_FEATURE_ID</b>	varchar2(16)	The Identifier is unique to the record within the table. The ID is prefixed with the state or territory abbreviation, e.g. NSW123456	Y	Y	-	-	ADD_FT_ID
<b>ADDRESS_FEATURE_PID</b>	varchar2(16)	The Persistent Identifier is the unique identifier for the addressable object this record represents. The PID allows for tracking change to the ADDRESS_DETAIL_PID associated with an addressable object over time. The PID is prefixed with AF and the state or territory abbreviation, e.g. AFNSW123456	N	Y	-	-	ADD_FT_PID
<b>ADDRESS_DETAIL_PID</b>	varchar2(15)	The Persistent Identifier that is unique to the real world feature this record represents.	Y	Y	ADDRESS_DETAIL	ADDRESS_DETAIL_PID	ADD_DT_PID
<b>DATE_CREATED</b>	Date	Date the address (ADDRESS_DETAIL) record was created.	N	Y	-	-	DT_CREATE
<b>DATE_RETIRED</b>	Date	Date the address (ADDRESS_DETAIL) record was retired.	N	N	-	-	DT_RETIRE
<b>CHANGE_TYPE_CODE</b>	varchar(50)	The code indicating the type of change, for example, LOC-STN for locality name and street name change.	N	Y	ADDRESS_CHANGE_CODE_AUT	CODE	CODE

### *ADDRESS\_CHANGE\_CODE\_AUT*

Name	Data Type	Description	Prim Key	Man	F K TABLE	F K Col	10 Char Alias
<b>CODE</b>	varchar(50)	An abbreviated name of the type of change. Field length: up to fifty characters. This is the persistent identifier.	Y	Y	-	-	CODE_AUT
<b>NAME</b>	varchar2(100)	Name of the address change type code.	N	Y	-	-	NAME_AUT
<b>DESCRIPTION</b>	varchar2(500)	Description of address change type code.	N	N	-	-	DSCPN_AUT