



Information Paper

Outcome from The Review of the Australian Standard Geographical Classification

Australia

2008

I N Q U I R I E S

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**Outcome from The Review
of the Australian
Standard Geographical
Classification**

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2008

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AUSTRALIAN BUREAU OF STATISTICS

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CONTENTS

page

CONTENTS

Preface	vii
Introduction	ix
Submissions Received and the ABS Response	1
Building and Implementing the ASGS	8
Conclusion	10
Appendix Submissions Received	11

PREFACE

PREFACE

The Australian Standard Geographical Classification (ASGC) is used for the collection and dissemination of geographically classified statistics. The ASGC has formed the foundation of the statistical geography used by the Australian Bureau of Statistics (ABS) since 1984.

The ABS intends to replace the current ASGC with the new Australian Statistical Geography Standard (ASGS) through an implementation strategy commencing in 2011.

The ASGS will be based upon mesh blocks creating more stable and consistent units than the ASGC. It will be the new basis for the publication of the complete range of ABS spatial statistics. The ASGS will become the essential reference for understanding and interpreting the geographical context of ABS statistics. The ABS anticipates that it will be widely adopted outside the ABS to facilitate the cross comparison of spatial statistics.

This paper is the second of two information papers designed to explain the ASGS and the implications of the move away from the ASGC. It addresses the main concerns of stakeholders regarding the ASGS and summarises the strategy for its introduction.

Specific information is available on the current ASGC and the proposed ASGS respectively in the following ABS publications: *Statistical Geography Volume 1 - Australian Standard Geographical Classification (ASGC), July 2006* (cat. no. 1216.0) and *The Review of the Australian Standard Geographical Classification* (cat. no. 1216.0.55.001)

Any inquiries regarding the ASGS, or suggestions for its improvement, can be made by contacting the Director, Geography by e-mail at geography@abs.gov.au.

Brian Pink
Australian Statistician

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
ASGC	Australian Standard Geographical Classification
ASGS	Australian Statistical Geography Standard
CD	collection district
ERP	estimated resident population
GISCA	National Centre for Social Applications of GIS, University of Adelaide
LGA	local government area
NCATSIS	National Centre for Aboriginal and Torres Strait Islander Statistics
NSW	New South Wales
NT	Northern Territory
SA	South Australia
SA1	statistical area level 1
SA2	statistical area level 2
SA3	statistical area level 3
SA4	statistical area level 4
SD	statistical division
SLA	statistical local area
SOS	Section of State
SUA	significant urban area
UC/L	Urban Centre/Locality
WA	Western Australia

INTRODUCTION

PURPOSE OF THIS PAPER

In August 2007, the ABS published the information paper *The Review of the Australian Standard Geographical Classification* (cat. no. 1216.0.55.001). The information paper proposed a new ASGS to replace the current ASGC and sought stakeholder feedback on the proposed statistical geography. While feedback has generally been positive, some concerns emerged.

This second information paper, *Outcome From The Review Of The Australian Standard Geographical Classification* (cat. no. 1216.0.55.002), advises stakeholders of the ABS' decision to adopt the ASGS as outlined in the earlier information paper (cat. no. 1216.0.55.001). This paper addresses stakeholder concerns, clarifies areas of misunderstanding and describes changes which will be made to the original proposal.

The design of the ASGS will commence in the second half of 2008 and will involve significant stakeholder consultation. The ASGS will become available in late 2010 and will be effective from 1 July 2011.

SUBMISSIONS RECEIVED AND THE ABS RESPONSE

THE SUBMISSIONS

There were 29 formal submissions received as a response to the information paper *The Review of the Australian Standard Geographical Classification* (cat. no. 1216.0.55.001). There were also a number of informal responses.

The majority of submissions were supportive of the proposal because it was more responsive to user needs, provided stable and consistent units and has greater geographical resolution than the current ASGC. However, most submissions expressed concerns about some aspect of the proposal. The main concerns raised were:

1. The impact on time series analysis
2. The impact on Local Government Area (LGA) data
3. The impact on the Northern Territory (NT) and Australian Capital Territory (ACT)
4. The number of Statistical Area Level 2s (SA2s)
5. Mesh block design around Urban Centres
6. The impact of releasing Labour Force data on the Statistical Area Level 4s (SA4s)
7. The lack of a Statistical Community Structure
8. The conceptual basis of the proposal
9. The difference between the Endorsed and Supported Structures

A tenth concern relating to the understanding of the term Major Urban Concentrations was raised within the ABS.

In light of these concerns the ABS has decided to accept the proposed ASGS as outlined in the information paper (cat. no. 1216.0.55.001), with the following changes:

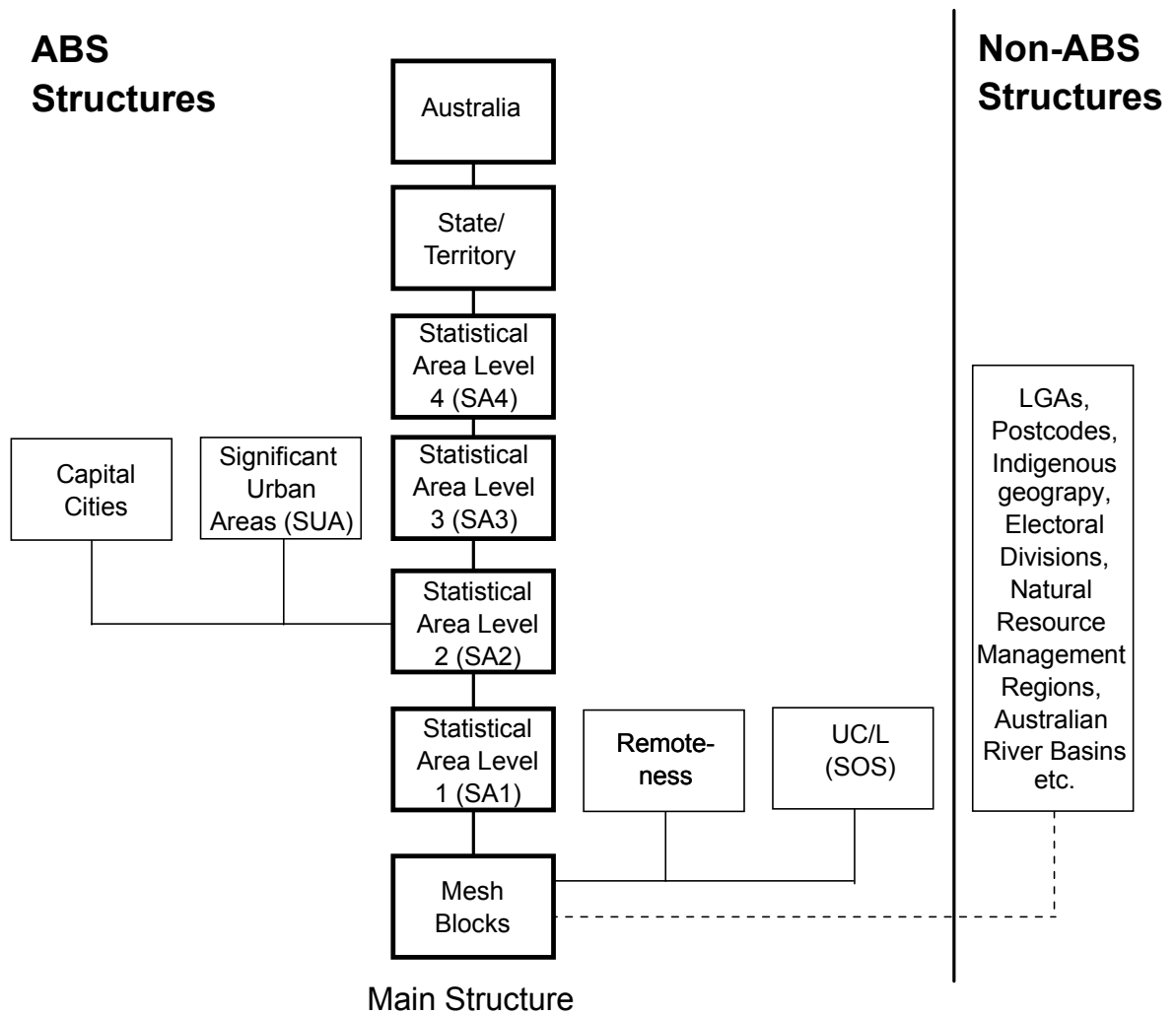
1. Special consideration will be paid to the suburb based characteristics of the NT and ACT in the implementation of the ASGS
2. The Endorsed and Supported structures will be combined and referred to as Non-ABS structures
3. The SA4 level will be aligned to the requirements of Labour Force data.
4. The ABS will engage with stakeholders to determine the feasibility of a 'Statistical Community' as a Non-ABS structure
5. The term Major Urban Concentrations will be replaced with the term Significant Urban Area (SUA)

The ten concerns and the five changes to the proposed ASGS as outlined above are discussed in more detail later in this chapter.

SUBMISSIONS RECEIVED AND THE ABS RESPONSE *continued*

Structure of the ASGS

The diagram below summarises the final structure of the ASGS.



SUBMISSIONS RECEIVED AND THE ABS RESPONSE *continued*

Summary of concerns

1 SUMMARY OF CONCERNS

Concern	Commonwealth	State and Territory	Local Government	Other	Total
Time Series	4	8	2	0	14
Local Government Areas	1	7	1	0	9
NT and ACT	0	3	0	0	3
Number of SA2s	1	1	0	0	2
Mesh block design	1	3	0	0	4
Labour Force	1	0	0	0	1
Statistical Community Structure	0	1	1	3	5
Conceptual Basis	1	0	2	0	3
Endorsed and Supported	1	0	0	0	1
Major Urban Concentrations	1	0	0	0	1

In interpreting Table 1 it should be recognised that:

- the concerns identified are broad categories which are not mutually exclusive
- the table gives no indication of the relative significance of stakeholders or the importance of a particular concern to them
- several submissions were combined responses from several stakeholders.

In analysing Table 1, it is apparent that the impact of the proposal on time series is a major concern raised by a number of stakeholders across all levels of government. The impact on LGA statistics is another serious concern, particularly at a state level. There is also stakeholder support for a statistical community structure in the ASGS.

See the Appendix for a list of organisations that provided submissions.

Impact on time series

CONCERN

The potential impact of implementing the ASGS on time series was raised as a key concern by half of the submissions.

RESPONSE

The ABS acknowledges that the impact of the ASGS on time series analysis is critical and in response the ABS has or will:

- prepare population based correspondences between the ASGC and the ASGS for 2011 and 2016
- align mesh blocks to 2006 and 2011 statistical local area (SLA) and LGAs
- facilitate the release of 2011 Census of Population and Housing data on the ASGC (SLA) and ASGS
- consider the release of some 2006 Census of Population and Housing data on the 2011 ASGS
- recast 2001 - 2010 estimated residential population (ERP) data on SA2s
- reflect 2006 statistical division (SD) boundaries in the design of SA2s
- LGA boundaries in major cities will be a consideration in the design of SA2s

The ABS will provide other correspondences to facilitate the recasting of time series onto the ASGS.

SUBMISSIONS RECEIVED AND THE ABS RESPONSE *continued*

*Impact on Local
Government Area
Statistics*

CONCERN

Many stakeholders are concerned that the ABS would not continue to provide the current level of statistics for LGAs or would not be able to produce accurate LGA level statistics, particularly ERP.

RESPONSE

While the ASGS removes LGA boundaries from the main structure, LGAs will remain part of the ASGS as a Non-ABS structure.

To facilitate the correspondence of data between LGAs and SA2s:

- mesh blocks will be aligned to 2006 and 2011 LGAs
- LGA boundaries in major cities will be a consideration in the design of SA2s
- SD boundaries (which generally consist of groups of LGAs) will be considered in the design of SA2s in regional areas

The SA2s of the main structure will be designed in close consultation with ABS Demography section to provide a stable framework for ERP modelling. For LGAs, ABS Demography expects the SA2 modelled ERP to be as good, if not better, than their current SLA based modelling.

*The impact on the NT and
ACT*

CONCERN

The NT and ACT government submissions requested the retention of the current suburb based SLA structure in the new SA2 design. Their concern was that the strict application of the proposed guidelines would result in the NT and the ACT having significantly fewer SA2s than current SLAs. The submissions argued for special consideration because Darwin and Canberra suburbs:

- have a long history as a statistical unit
- were recognised by both the government and community
- clearly identify areas of growth
- clearly identify purely commercial areas (e.g. Mitchell and Fyshwick in the ACT)

In the NT there is also a concern that its small population and sparse settlement outside Darwin would result in very separate areas across large distances being combined.

RESPONSE

In response the ABS will give special consideration to the circumstances of the NT and ACT and will consult with the Territory governments in the final design of the ASGS boundaries. Other cities with suburb based SLAs, such as Brisbane and Townsville, will retain suburbs as part of the SA2 design.

SUBMISSIONS RECEIVED AND THE ABS RESPONSE *continued*

The Number of SA2s

CONCERN

A concern was expressed by some State Governments that the increased number of SA2s compared with SLAs would increase the resource burden on state planning departments to forecast population change.

RESPONSE

SA2s provide a more consistent unit for statistical analysis, addressing two of the main concerns about the current SLA design: the issues of consistent size and stability. There will be a greater number of SA2s than SLAs in the new structure and planning departments have the option of combining data provided by SA2s if they consider them too small. This concern is the counter argument of the NT and ACT Government's position of too few SA2s.

The SA2 level will be designed as the framework for the ABS to release ERP, in close consultation with the ABS Demography section and the state planning departments. Consideration will be given to the finest level of geographical resolution for ABS statistics as possible without compromising statistical quality.

Mesh Block Design surrounding Urban Centres and Localities

CONCERN

A number of stakeholders formally or informally expressed their concern that mesh blocks do not allow the identification of many Urban Centre/Localities (UC/L) in a comparable way with the ASGC Section of State (SOS) and UC/L structures.

RESPONSE

The ABS will ensure that UC/Ls can be defined in a way that meets the needs of users. The original design criteria for mesh blocks placed a high priority on population distribution and size. The ABS has since reconsidered this criteria relaxing the constraint of population size on mesh blocks thus allowing greater flexibility in mesh block design. A review of definition of urban/rural will be undertaken in the second half of 2008 and will include stakeholder consultation.

The impact of releasing labour force data on SA4s

CONCERN

Concern was expressed that the number of SA4s would be less than the current number of Labour Force Regions, thereby reducing geographical resolution.

RESPONSE

The SA4 level is intended as an output unit for the release of sample survey statistics, especially labour force. In practice labour force statistics are likely to be the only sample survey statistics released at the SA4 level. The ABS has concluded that it would be appropriate to design the SA4 level more closely to the requirements of labour force statistics. If the SA4 level cannot be reconciled to these needs, a separate ABS structure will be developed in consultation with relevant stakeholders.

SUBMISSIONS RECEIVED AND THE ABS RESPONSE *continued*

Statistical Community Structure

CONCERN

Five submissions raised the concern that the ASGS did not contain a structure representing communities as defined by their social characteristics.

RESPONSE

In the information paper (cat. no. 1216.0.55.001) the ABS originally rejected this idea of a statistical community. The ABS has decided, however, to engage with stakeholders to determine the feasibility of a 'Statistical Community' as a Non-ABS structure.

Conceptual Basis

CONCERN

Two main concerns were raised relating to the conceptual basis of the proposal. Firstly, the ABS' ability to identify functional zones. Secondly, the population range of units at each level of the ASGS Main structure.

RESPONSE

It would be possible to identify a hierarchy of service centres and their functional zones rigorously. However, this approach would not generate a straightforward hierarchy of areas as functional zones overlap and interact in complex ways. The result would be too complex for the needs of the majority of the ABS's statistical users. The ABS therefore does not intend to apply the concept to all levels of the structure and, where it is applied, it will be modified by other considerations. For further information regarding these considerations please refer to the first information paper (cat. no. 1216.0.55.001).

The ABS will analyse 2006 Census Travel to Work data to identify relatively self contained local labour markets. The ABS will also build on work done by the National Centre for Social Applications of GIS, University of Adelaide (GISCA) to identify service centres and their functional zones. These will be considered in SA2 and SA3 design. Other considerations will be the transport network, urban development, topography, administrative boundaries and consultation with stakeholders. Stakeholders will be given an opportunity to comment on the boundaries and labels before they are finalised.

The variability of the population size of the main structure units was raised informally. While the units of the main structure are much less variable than the current ASGC main structure there is still a considerable population range. Apart from a number of zero (or very low) population SA2s, most will fall within the population range of 3,000 to 25,000 people. This represents an eightfold difference between the smallest and largest units.

Maintaining, supplying and analysing data on any unit is a burden to the ABS and many of its stakeholders. The ABS must also consider the relative statistical value of any potential geographical unit. It would be possible to reduce the variation in the population range by simply splitting the larger SA2 units. This would potentially create a large number of geographically meaningless units, particularly in the major cities. Large population SA2s are more appropriate in the suburbs of the larger cities, where settlement is dense and relatively uniform. Small SA2s are more appropriate to remote and outer regional areas where the settlement is sparse and diverse.

SUBMISSIONS RECEIVED AND THE ABS RESPONSE *continued*

Endorsed and Supported Geographies

CONCERN

The distinction between the Endorsed and Supported structures of the ASGS caused some confusion to stakeholders.

RESPONSE

The distinction between the Endorsed and Supported structures has no practical effect on how a set of boundaries will be treated in the ASGS. They will therefore be combined under the term Non-ABS Structures.

The term Major Urban Concentrations

CONCERN

The term "Major Urban Concentrations" has the potential to mislead users.

RESPONSE

The ABS considers Significant Urban Areas (SUA) a better description of what the classification represents, i.e. urban areas or closely linked clusters of urban areas with an urban population in excess of 10,000. The SUA structure is intended to replace the current Statistical District Structure and will cross state borders where appropriate. The structure will be built from whole SA2s.

BUILDING AND IMPLEMENTING THE ASGS

THE INTRODUCTION OF THE ASGS

The ASGS will be available from late 2010 and will become effective from 1 July 2011. It will be implemented progressively from this date for all ABS collections, including the 2011 Census of Population and Housing and the 2011 Agricultural Census.

The ASGC will continue to be published in its present form until July 2010, with a final abbreviated version published in July 2011, excluding Census Collection Districts (CDs). The 2011 Census of Population and Housing will be released on the 2011 ASGS and the abbreviated ASGC.

The release of the Remoteness Areas and Urban Centres and Localities based on the ASGS will occur, as is current practice, after the analysis of the 2011 Census of Population and Housing data.

The design of the main structure of the ASGS will occur throughout 2008 - 2010. This process will involve extensive stakeholder consultation. The ABS will endeavour to facilitate stakeholder input during the consultation period for the development of each level of the ASGS.

ABS encourages the adoption of the ASGS based on mesh blocks by other organisations to increase the comparability of statistical information across Australia.

SA2 design

The SA2s are the key level in the ASGS as the majority of intercensal data will be available at this level. SA2 boundaries will constrain SA1s, and the higher levels of the ASGS main structure will be made up of whole SA2s.

Draft SA2s will be designed on a state by state basis, with stakeholders given 3 months to comment on the draft SA2 design for their state. There is considerable scope for the draft SA2 boundaries to be changed as a result of stakeholder feedback. SA2 design should be completed in the first half of 2009.

SA1 design

Once the SA2 boundaries have been finalised for each state, SA1 design will commence and stakeholders will again be given 3 months to comment. Minor changes to SA2 boundaries can be accommodated in this process.

SA3, SA4, Significant Urban Areas

The design of SA3s, SA4s and Significant Urban Areas will run parallel to the design of the SA1 boundaries. There will be a 6 week consultation period to comment because the issues are less complex.

Non-ABS Structures

The Non-ABS structures will be operational for the 2011 Census of Population and Housing based upon mesh blocks.

Only Indigenous Geography needs to be finalised by 2011 Census of Population and Housing and this will be done by the ABS National Centre for Aboriginal and Torres Strait Islander Statistics (NCATSIS) in close cooperation with their stakeholders.

The Non-ABS structure includes:

- LGAs
- Postcodes
- Indigenous geography
- Electoral Divisions
- Natural Resource Management Regions
- Australian River Basins

Correspondence files will be available and if user demand exists, mesh block approximated boundaries will be released.

CONCLUSION

CONCLUSION

The ABS will adopt the Australian Statistical Geography Standard (ASGS) as outlined in the Information Paper *The Review of the Australian Standard Geographical Classification* (cat. no. 1216.0.55.001), with several modifications as a result of concerns raised by stakeholders illustrated in this Information Paper (cat. no. 1216.0.55.002)

The ASGS will be made available in late 2010 and will be implemented progressively for all ABS collections from the effective date of 1 July 2011.

The ABS encourages the adoption of the ASGS based on mesh blocks by other organisations to increase the comparability of statistical information across Australia and will be communicating the changes extensively prior to July 2011.

APPENDIX SUBMISSIONS RECEIVED

SUBMISSIONS RECEIVED

Submissions were received from the:

Australian Early Development Index
Australian Electoral Commission
Australian Bureau of Agricultural and Resource Economics
ACT Chief Minister's Department
ACT Department of Education and Training
Department of Employment and Workplace Relations
Department of Transport and Regional Services
Bureau of Rural Sciences
Blue Mountains City Council
Census Applications
Centre for Developmental Health, Curtin University
Medicare
NSW Department of Housing
NSW Department of Planning
NSW Roads Traffic Authority
NT Department of Health and Community Services
NT Department of Local Government and Sport
Orange City Council
Western Sydney Regional Information and Research Centre
Queensland Government (combined response)
SA Government Reform Commission
SA Department of Planning
Tasmanian Government (combined response)
Tasmanian Department of Primary Industries and Water
Telethon Institute for Child Health Research, Curtin University
Victorian Department of Planning and Community Development
WA Local Government Association
WA Department of Education and Training
Wollongong City Council

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