



Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

# The State of the QLD DCDB: An Accuracy Assessment in the Mackay Region

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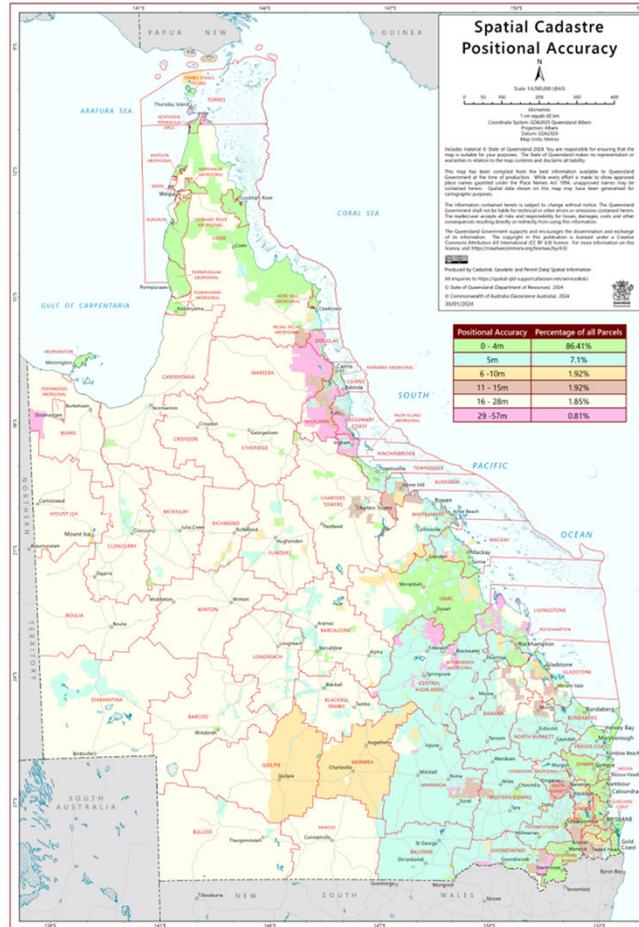


PLATINUM SPONSORS



## Outline

- Background
- Methods
- Results
- Discussion/Limits
- Conclusion



Aim:

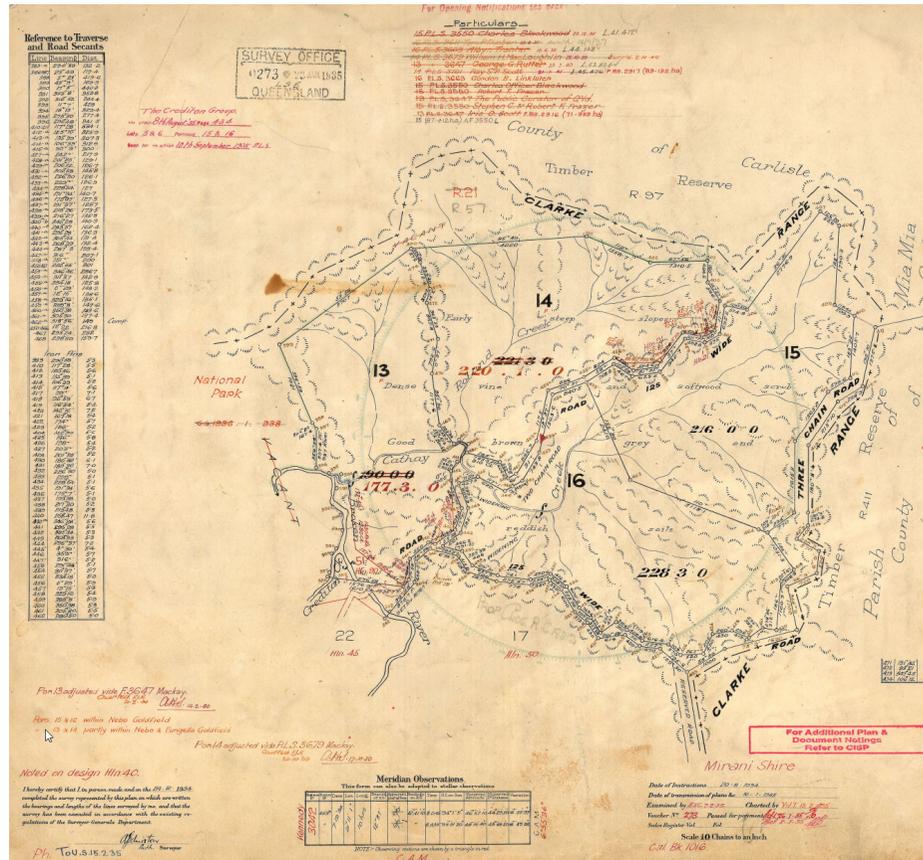
1. Evaluate Positional Uncertainty of the DCDB

Questions:

1. How reliable is the DCDB?
2. Can areas be prioritised?

## Background

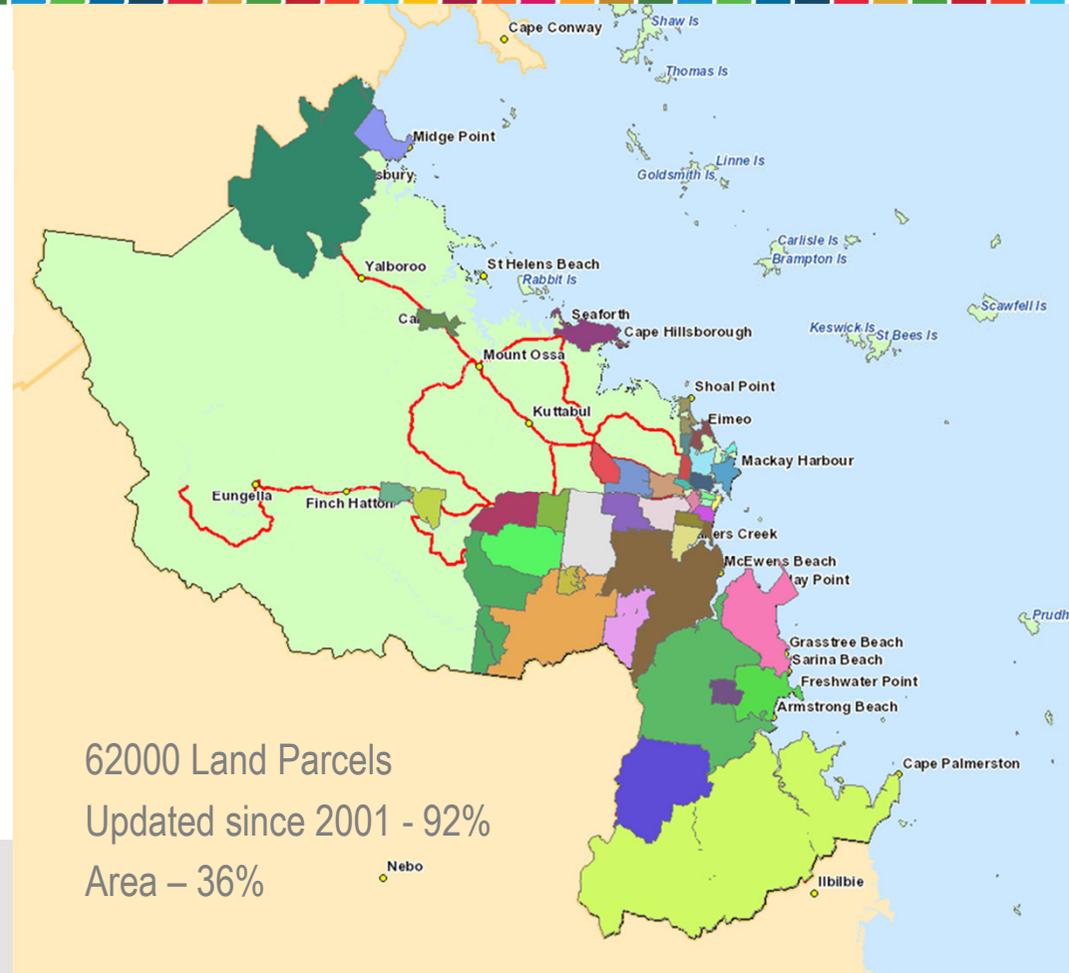
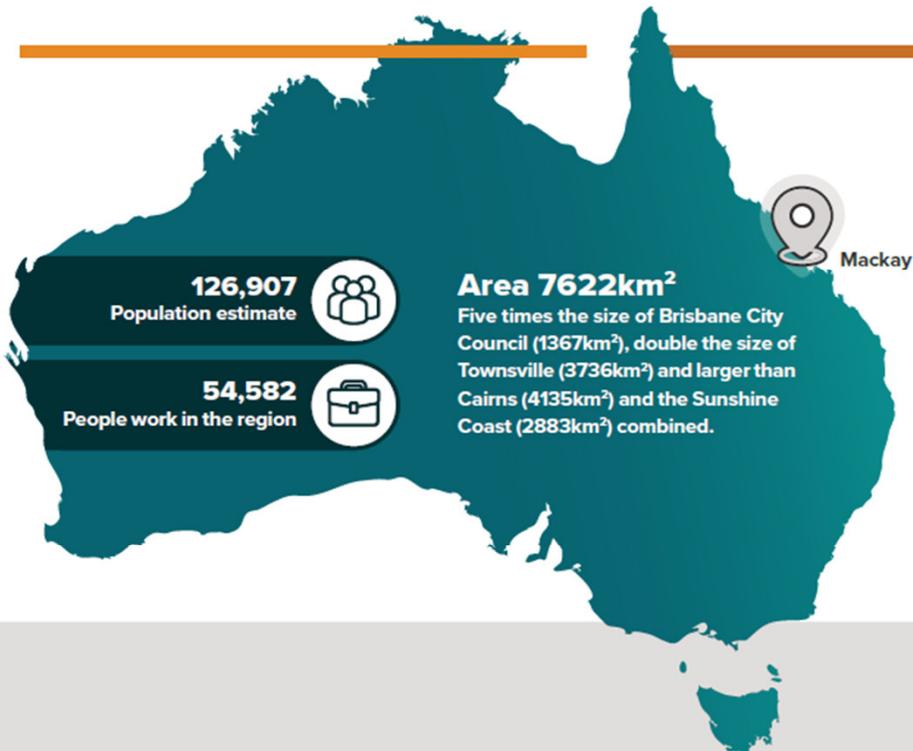
- Cadastre 2034 Vision
- Multipurpose Dataset
- Positional Accuracy Errors



**CADASTRE 2034** Powering Land & Real Property

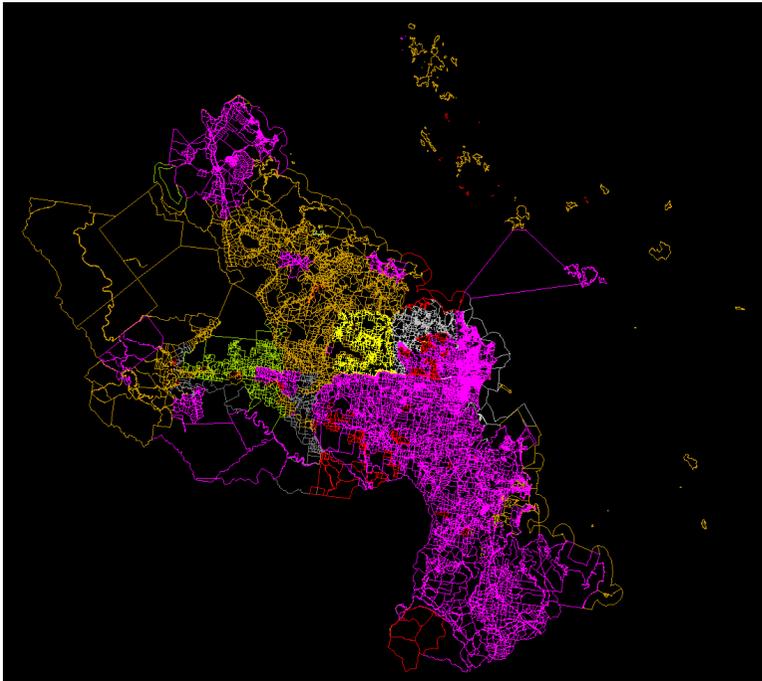
Cadastral Reform and Innovation for Australia - A National Strategy

## Study Area



# Methods

## DCDB Download

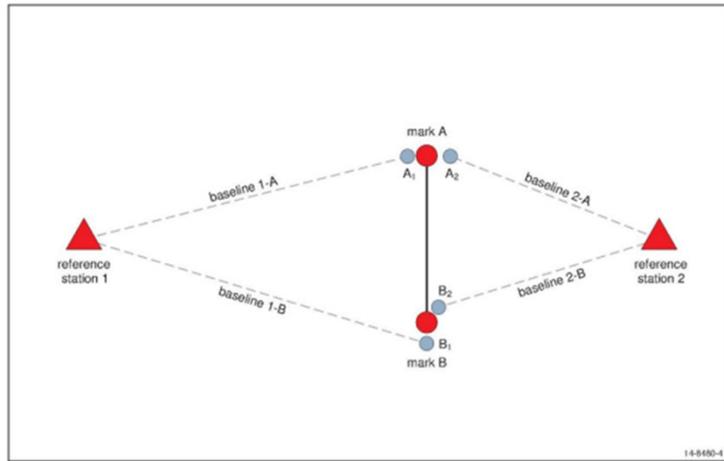


## Tabulate Data

Row Labels	Parcel Count
B&D ENTRY CONTROLLED - 0.1M	42334
B&D PLOT CONTROLLED - 0.25M	8528
B&D PLOT CONTROLLED - 0.3M	4831
B&D PLOT CONTROLLED - 0.5M	846
B&D PLOT CONTROLLED - 1.5M	25
B&D PLOT CONTROLLED - 1M	577
B&D PLOT CONTROLLED - 2M	218
B&D PLOT CONTROLLED - 5M	145
PARISH MAP 1:100000 CONTROL - 57M	186
STANDARD 1:100000 CADASTRAL MAP - 6M	724
STANDARD 1:100000 CADASTRAL MAP - 56M	29
UPGRADE ADJUSTMENT - 0.25M	3
UPGRADE ADJUSTMENT - 0.5M	8
UPGRADE ADJUSTMENT - 10M	29
UPGRADE ADJUSTMENT - 1M	399
UPGRADE ADJUSTMENT - 2M	1015
UPGRADE ADJUSTMENT - 5M	2153
UPGRADE IMAGERY - 25M	535
UPGRADE IMAGERY - 50M	2
UPGRADE PHOTOGRAMMETRY - 2M	18
UPGRADE RECTIFICATION - 2M	143
(blank)	
Grand Total	62748

## Methods cont.

ISCM - Guideline for Control Surveys by GNSS  
Special Publication 1



## Datum - Permanent Survey Mark

Queensland Government

### Survey Control Mark Report

GDA2020 COORDINATES

Lineage	Datum		
Latitude	21° 24' 27.18732" S	MGA2020 Easting	730917.297m
Longitude	149° 13' 39.24829" E	MGA2020 Northing	7631107.377m
Hzr Posn Uncertainty	0.019m	MGA2020 Zone	55
Ellipsoidal Height	65.923m	MGA2020 Point Scale	1.00025896
Vrt Posn Uncertainty	0.055m	MGA2020 Grid Conv	0° 48' 48"
Published	18-Feb-2025	Fixed By	GPS
Adjustment	QLD ANJ 25.01		

SP256338 V1 REGISTERED Recorded Date 24/05/2013 10:46 Page 1 of 3 Not To Scale

Land Title Act 1994 - Land Act 2004  
Form 21 Version 2

### SURVEY PLAN

15 sq ha  
69.2385 ha Eal

FOR THE USE OF  
MACKAY REGIONAL  
COUNCIL ONLY

Original information compiled from IS191565, RC850167, C12457, C124639, C1998 & RP745239 in the Department of Natural Resources and Mines.

STN	TO	ORIGIN	BEARING	DIST
1	GP	RC850167	317°24'	0.825
2	GP	RC850167	319°14'	0.9
3	O.D.P. in E of end of	RC850167	238°23'	0.8
4	Tide Pt	RC850167	220°17'30"	31.38
5	GP	RP723276	317°45'	1.006
6	GP	RC850167	18°10'	0.85
7	Pin		20°15'	2.43
8	Pin		208°47'	2.72
9	Pin		238°20'	1.85
10	Pin		184°13'	1.25
11	Pin		149°13'	21.06

TABLE A  
CHECK POINTS

STATION	ORIGIN	BEARING	DIST
1	RP723276	102°75'00"	0.825
2	227°45'	32.010	0.9
3	234°40'	21.010	0.9
4	248°00'	40.838	0.85
5	220°17'30"	33.429	0.8
6	332°50'	73.170	0.85
7	208°47'	33.429	0.85
8	248°00'	83.380	0.85
9	184°13'	49.540	0.85
10	188°40'	41.840	0.85
11	149°13'	31.380	0.85
12	184°13'	102.580	0.85
13	171°14'	20.720	0.85
14	170°15'	44.810	0.85
15	171°07'30"	30.450	0.85
16	181°14'	40.838	0.85

PERMANENT SURVEY MARKS

PSM	ORIGIN	BEARING	DIST	NO	TYPE
4 - O.PSM	SP187045	216°20'	58.9	(K3050)	Strip Picket
12 - PSM		173°10'	3.63	(74705)	5/8" Steel Bolt & Washer

Scale: 1:7500 - Lengths are in Metres

Plan of Lots 21 & 22

Canncelling Lot 3 on RP744319 & Lot 2 on RP745239

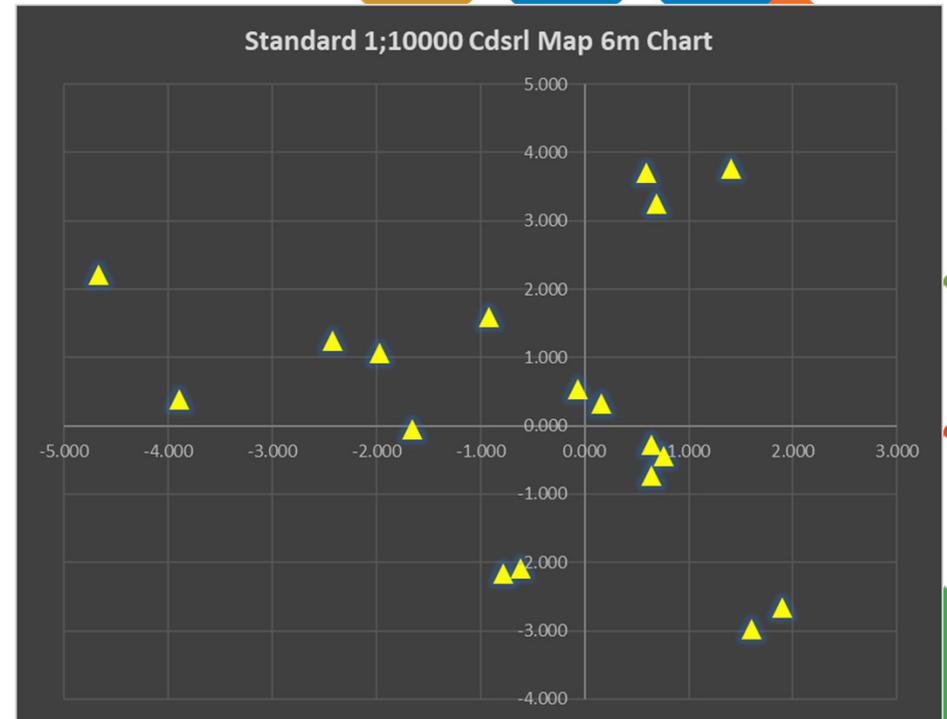
PARISH: SARINA COUNTY: Carlisle

Warden: Add 8°42' for MGA Zone 55 Vide C12461

Scale: 1:7500  
Format: STANDARD  
SP256338

# Results

Accuracy Type	Accuracy Value	Mean Value	Comparison	Points Measured
Standard 1:10000 Cadastral Map	6.0m	2.40m	60%	18
Parish Map 1:100000 Control	57m	4.381m	92.31%	14
Upgrade Imagery	25m	4.361m	82.56%	26
Upgrade Adjustment	0.25m	0.075m	70%	3
Upgrade Adjustment	0.5m	0.205m	59%	4
Upgrade Adjustment	1m	0.203m	79.7%	26
Upgrade Adjustment	2m	0.217m	89.15%	33
Upgrade Photogrammetry	2m	0.155m	92.25%	12
Upgrade Rectification	2m	0.178m	91.10%	16
<b>Total</b>				<b>152</b>





## Future Work

- Larger accuracy areas
- Assess updated areas
- Trends
- Start update process



## Conclusion

Aims:

1. Evaluate Positional Uncertainty of the DCDB



Questions

1. How reliable is the DCDB?
2. Can areas be prioritised?



**Queensland Government**



## A Vision for Cadastre 2034

"A cadastral system that enables people to readily and confidently identify the location and extent of all rights, restrictions and responsibilities related to land and real property."

In future, citizens will know what can be done on land (rights), what cannot be done (restrictions) and what must be done (responsibilities).

Time vs Cost

Focussed priorities

Reliable Dataset

ICSM – Cadastre 2034

## The most relevant SDGs related to the presentation and theme of this session

1st relevant SDG



**11** SUSTAINABLE CITIES AND COMMUNITIES

2nd relevant SDG



**15** LIFE ON LAND

3rd relevant SDG



**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

**SUSTAINABLE DEVELOPMENT GOALS**

International Federation of Surveyors supports the Sustainable Development Goals

**STEP 1: SELECT HERE THE THREE MOST RELEVANT SDGs**  
**STEP 2: COPY THE SDG INTO PREVIOUS SLIDE**

