Cadastral Spatial Programs
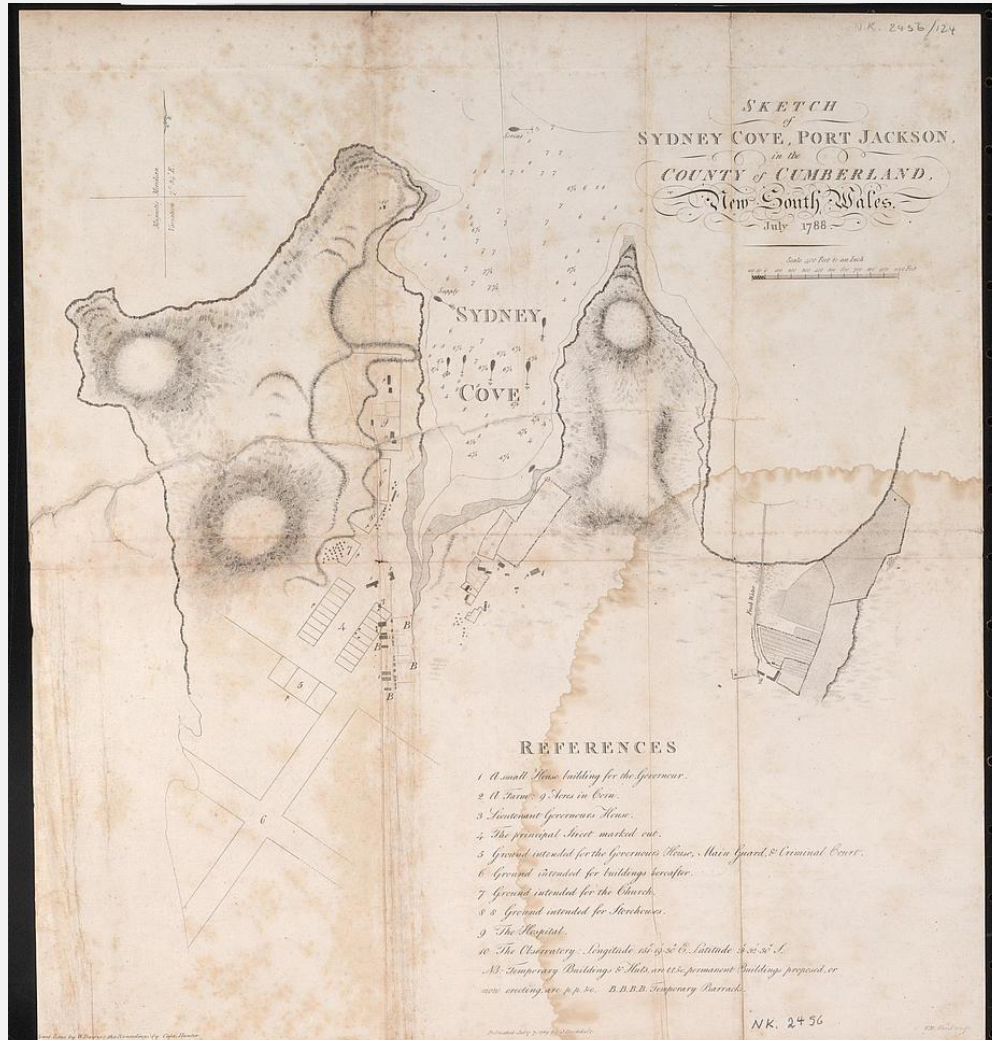
2021 Program Update

Erin Telford

Supervisor Cadastral Development Programs

The DCDB, where did it all begin?

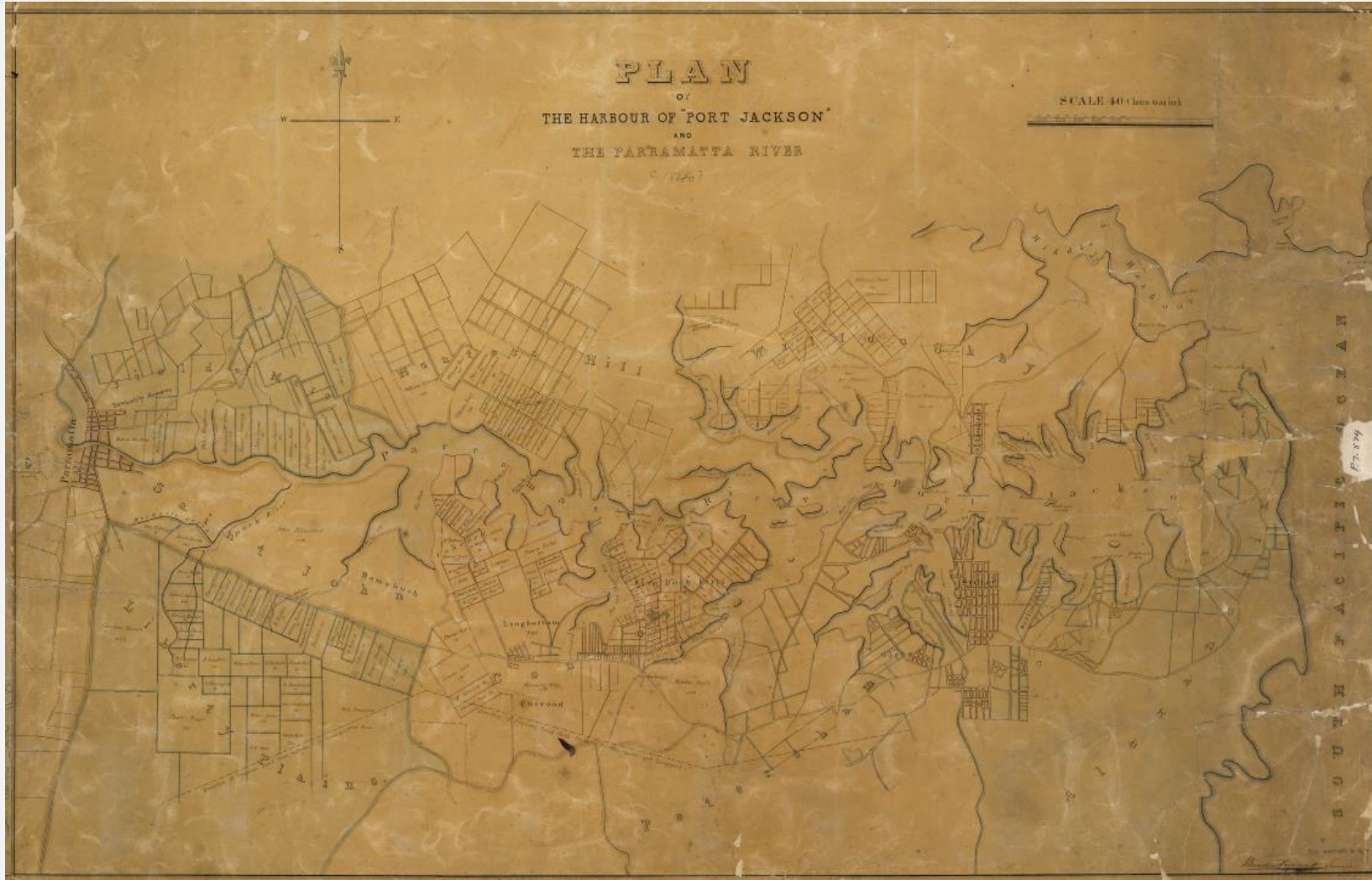National Library of Australia

nla.map-nk2456-124-e

1825
Royal instructions to Governor Brisbane for a general survey and valuation of land in the Colony
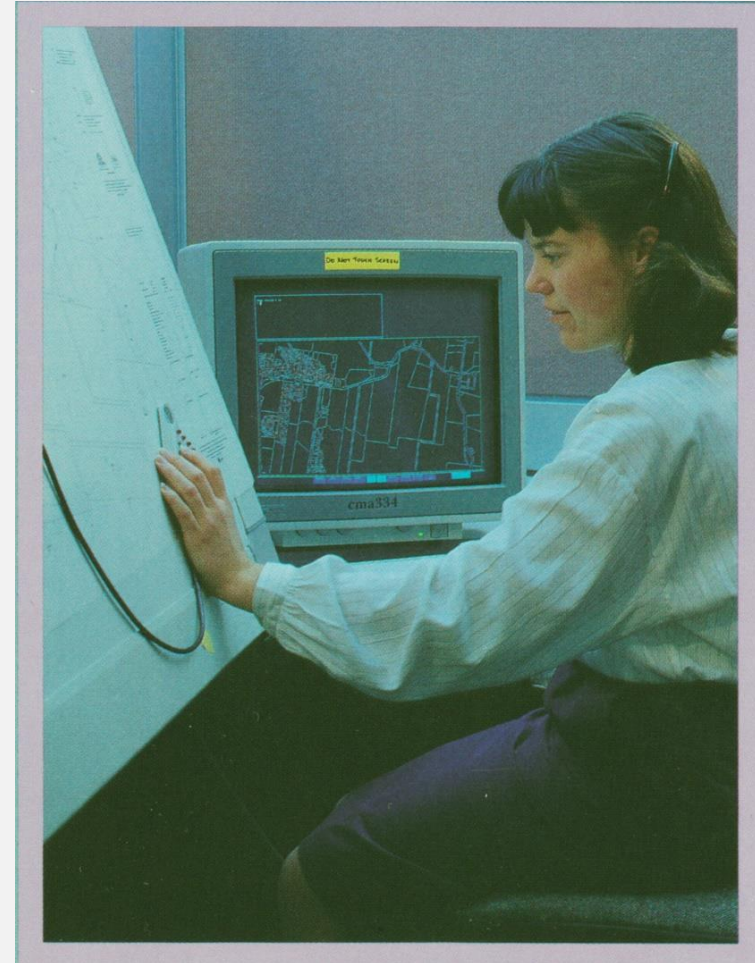
Early Mapping in NSW

Counties: 141
Parishes: 7459
Parish Maps were used between 1848 – 2002 (154 Years)
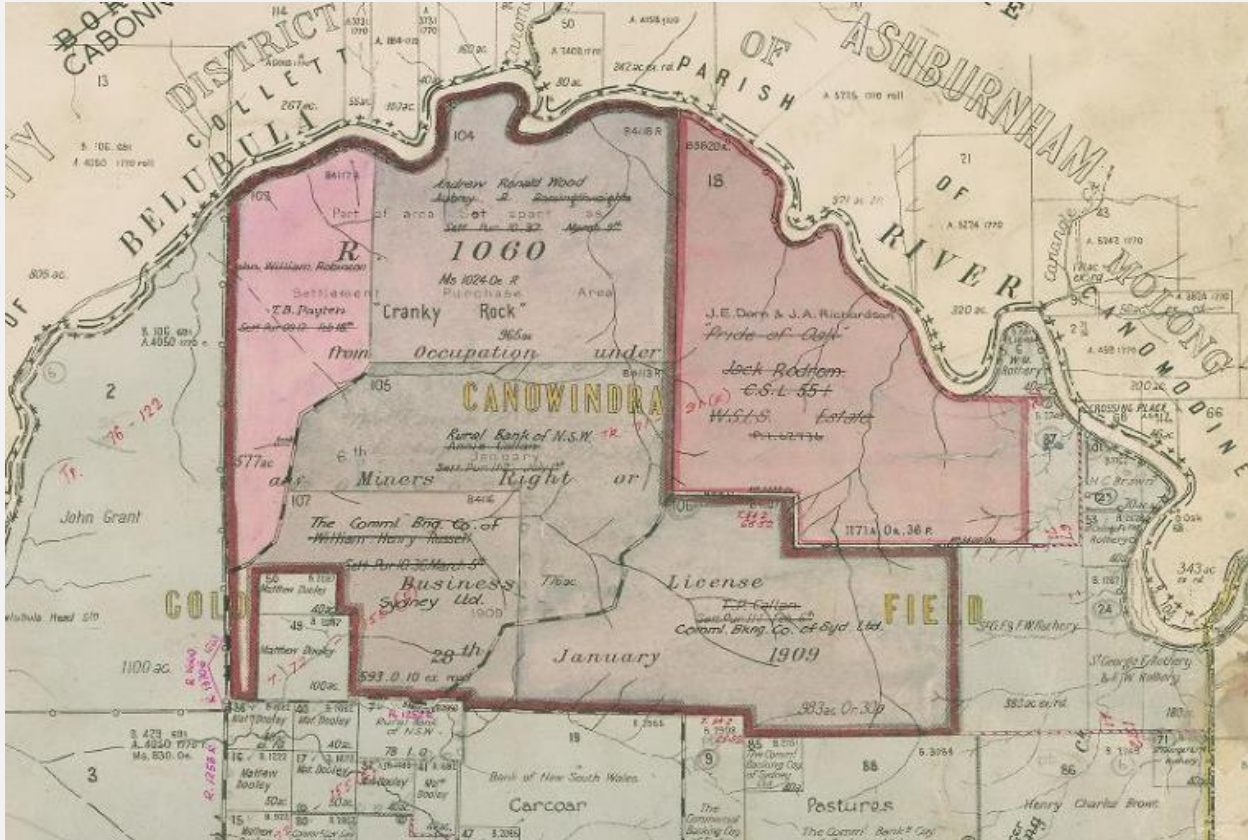
Darling Harbour

The Shift and Migration to a Digital Mapping System

- **Original Cadastral data was in hard copy maps produced from Parish maps and plans**

- **1980-1987 GRAPHIC DATABASE. Focus was on the capture of the digital data in such a form that it could be plotted on a flatbed plotter, prior to completion using manual techniques. No intelligence**

- **1987-2004 the DCDB was captured using Genamap GIS and provided a spatial index into the title register, allowed a supply of digital data to clients and an ability to query and analyse the data.**

- **2004-PRESENT As part of the Spatial Maintenance System project, ESRI ARC tooling was introduced through extensive in-house development and a new sophisticated cadastral model**

This is a cadastral map. It contains deposited plan (DP) and strata plan (SP) numbers, street names, and lot numbers.

Street names:
- CASCADE ST
- PARKE ST (ST RD / HURST RD)
- BATHURST RD
- GREAT WESTERN HWY
- FREELANDER AVE
- GOLDSMITH PL
- GANG GANG ST
- KATOOMBA ST
- LURLINE ST
- MURRI ST
- KATOA ST
- WARRIGA ST
- COLLEGE LANE

Deposited Plan / Strata Plan numbers:
- SP 89772
- DP 2059
- DP 172296
- DP 1167372
- DP 705910
- DP 827236
- DP 236340
- DP 656607
- DP 12296
- DP 1154
- DP 738302
- DP 751627
- DP 1142864
- DP 314287
- DP 692
- DP 1116592
- DP 1006368
- DP 94112
- DP 340121
- DP 964255
- DP 398548
- DP 1178458
- DP 317079
- DP 456618
- DP 95024
- DP 310663
- DP 431614
- DP 1150927
- DP 910567
- DP 123749
- DP 919987
- DP 919750
- DP 900453
- DP 929512
- DP 923333
- DP 980101
- DP 105055
- DP 3832
- GANG GANG ST
- DP 169721
- DP 301378
- DP 169100
- DP 303888
- DP 12537
- DP 330802
- DP 554276
- DP 902771
- DP 707
- DP 666832
- DP 938306
- DP 707
- DP 333829
- DP 692
- DP 952144
- DP 1062855
- DP 1093426
- DP 401312
- DP 305875
- DP 186869
- DP 187532
- DP 654158
- DP 340199
- SP 1933
- DP 332385
- DP 9949
- DP 406430
- DP 501006
- SP 72236
- DP 2059
- DP 332604
- DP 130668
- DP 123567
- DP 930546
- DP 121300
- DP 171211
- DP 116091
- DP 100801?
- DP 883673
- DP 419871
- DP 397308
- DP 956591
- DP 656470
- DP 179092
- SP 30871

Cadastral Spatial Programs

Cadastral Maintenance

Cadastral Development

Cadastral Transformation

DCDB Maintenance
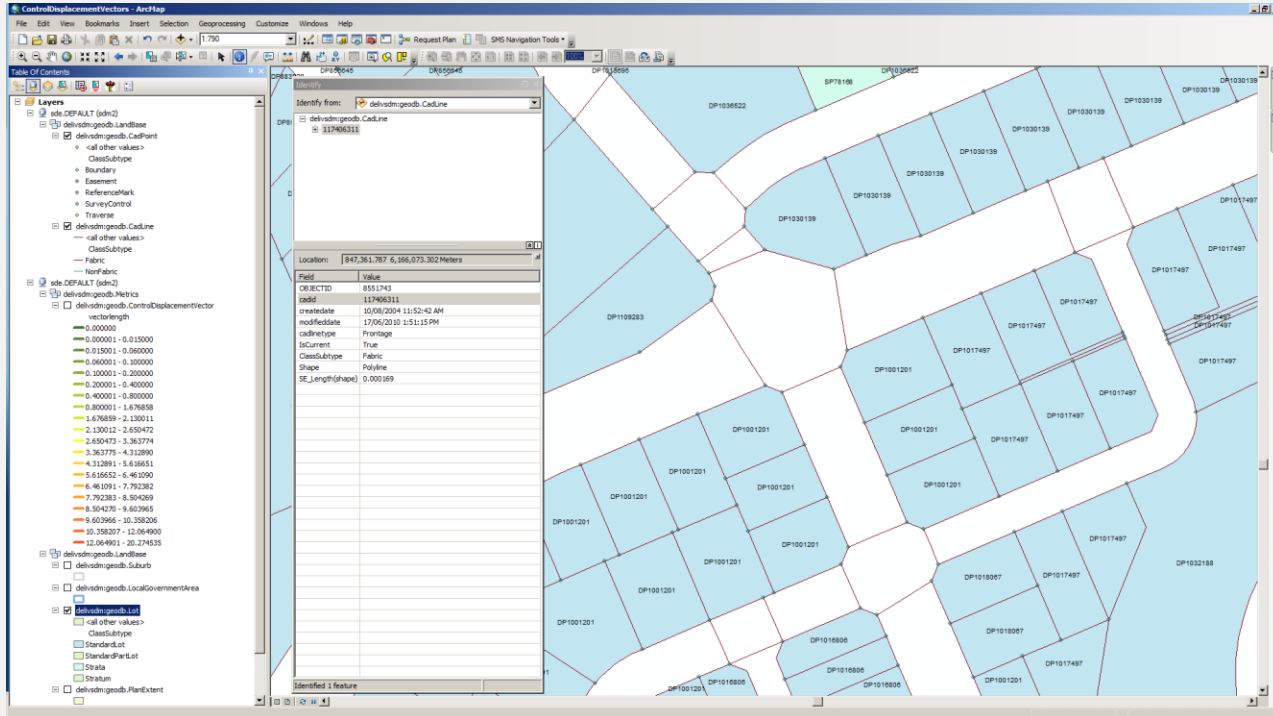
- **11,000 new plans added to the DCDB**

- **39,122 new lots**

- **2.94 million new features**

- **Other BAU**

- **Amendment requests, Gazettal capture, Amended plan changes, transformational activity**

PLAN FORM 2A

Plan Drawing only to appear in this space

DP1062855

PLAN FOR LEASE PURPOSES
OF LOT 1 DP 882320
∅ OF SUBDIVISION

Lengths are in metres.   Reduction Ratio 1 : 600

L.G.A.: BLUE MOUNTAINS

Locality: KATOOMBA

Parish: MEGALONG

County: COOK

PROPOSED RIGHT OF ACCESS - VARIABLE WIDTH
PROPOSED RIGHT OF ACCESS - VARIABLE WIDTH
(A) RIGHT OF WAY 3.05 WIDE (A36679)
(B) RIGHT OF WAY 3.05 WIDE (B72727)
(C) EASEMENT FOR ELECTRICITY PURPOSES (W471336)
(D) RIGHT OF CARRIAGEWAY VARIABLE WIDTH (DP882320)
(E) COVENANT - G430709
(F) COVENANT - K901210
(H) BENEFITED BY RIGHT OF WAY - A732801
(J) BENEFITED BY RIGHT OF WAY - 309949

Crown Lands Office Approval

SURVEY PRACTICE REGULATION 2001 CLAUSE 32(2)

MARK	MGA CO-ORDINATES		MGA ZONE	CLASS	ORDER
	EASTING	NORTHING			
SSM 38445	250717.571	6266630.647	56	B	2
PM 40937	250765.433	6265963.735	56	B	2
PM 40938	250968.294	6265933.791	56	B	2
PM 42689	250680.368	6266738.729	56	B	2

SOURCE S.C.I.M.S. 4TH OCTOBER 2002

COMBINED SCALE FACTOR 1.000207

ARC TABLE

	CHORD BEARING	CHORD LENGTH	ARC	RADIUS
1	138° 00' 40"	3.27	3.825	2.0
2	54° 52'	11.32	12.46	8.29
3	296° 22'	22.23	22.37	57.76

DIAGRAM 'A'

9

Cadastral Maintenance - 24TAT

- **All new Deposited Plans converted to LandXML within**
- **24 hours of registration**

- **4,400 new DP registrations captured in LandXML**
- **(12,239 PTD)**

DCDB Upgrade

- **1,279,690 Parcels have been upgraded in NSW. Improved from inaccuracies of 0.5m-250m down to 0.2m (urban), 0.5m (regional) and 2.0m (remote) accuracy or better.**

- **Over 25% of Parcels in NSW have been upgraded.**

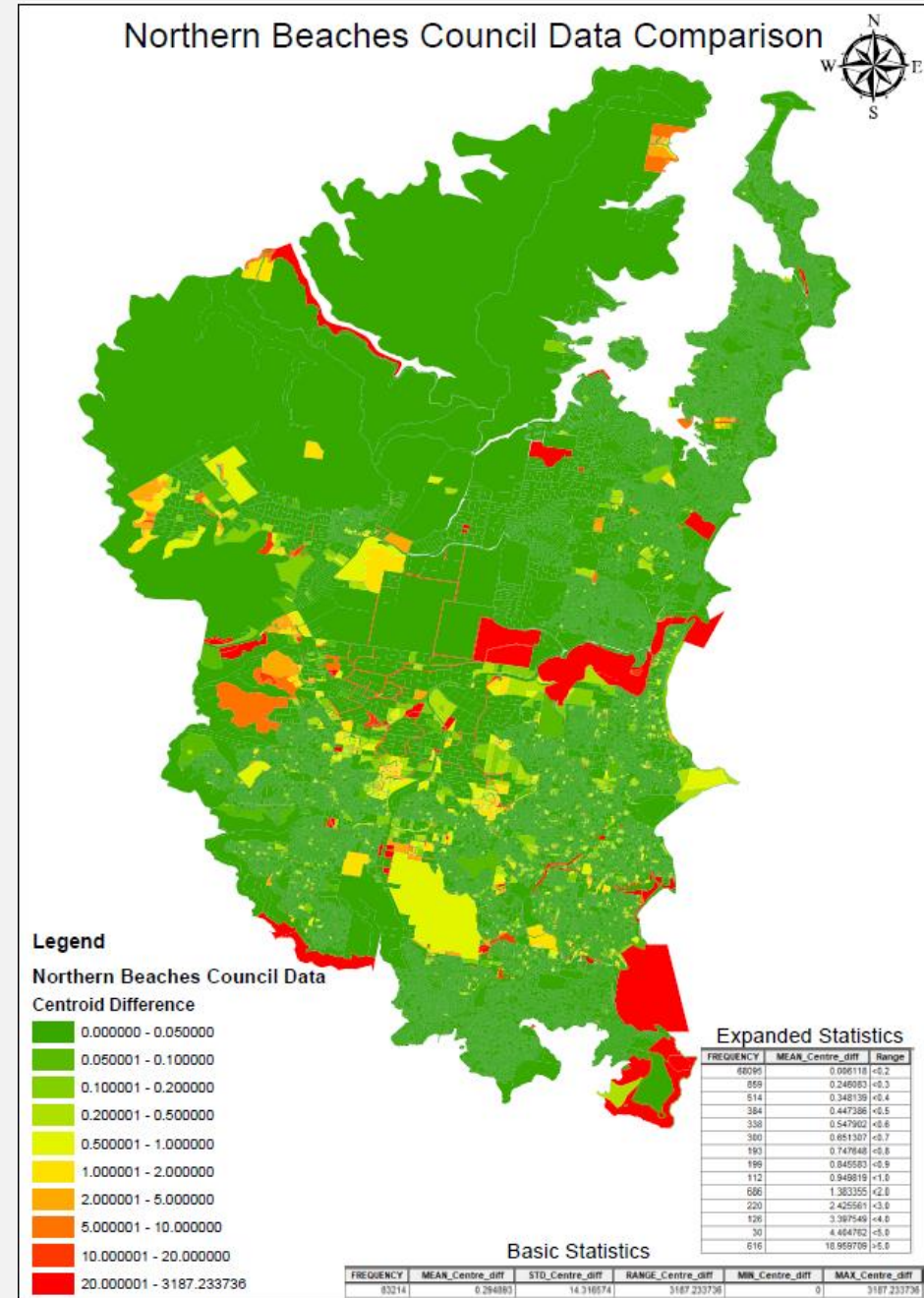**BEFORE UPGRADE**   **AFTER UPGRADE**
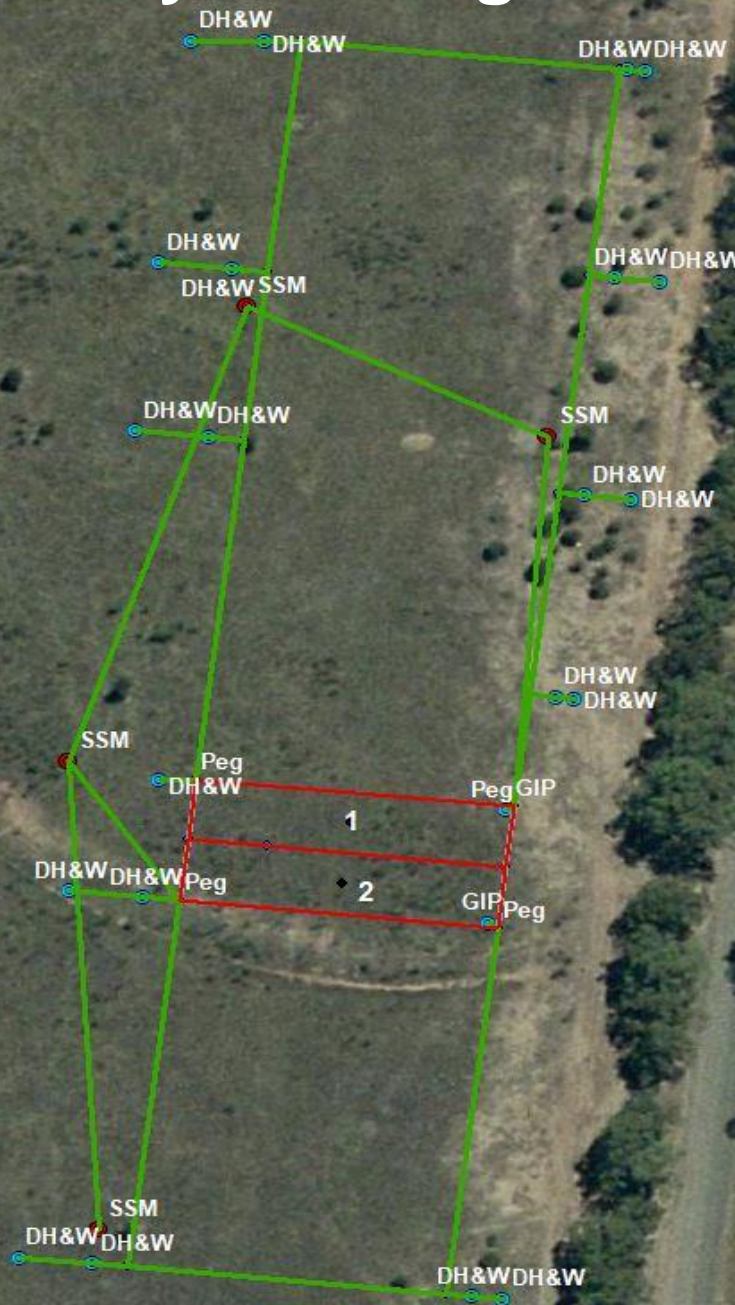
Why are parts of the Cadastre inaccurate?

Manual digitisation and scanning techniques were used to create the DCDB. All scale and topological errors that existed on all the original hand drawn maps were transferred to the digital version during the digitisation process that now in the modern digital format can be seen as inaccurate.

Council Collaboration

- **SS works closely with Councils who maintain their own cadastral datasets**
- **Conflation of the DCDB to Councils data is used where their data is in a better spatial position.**
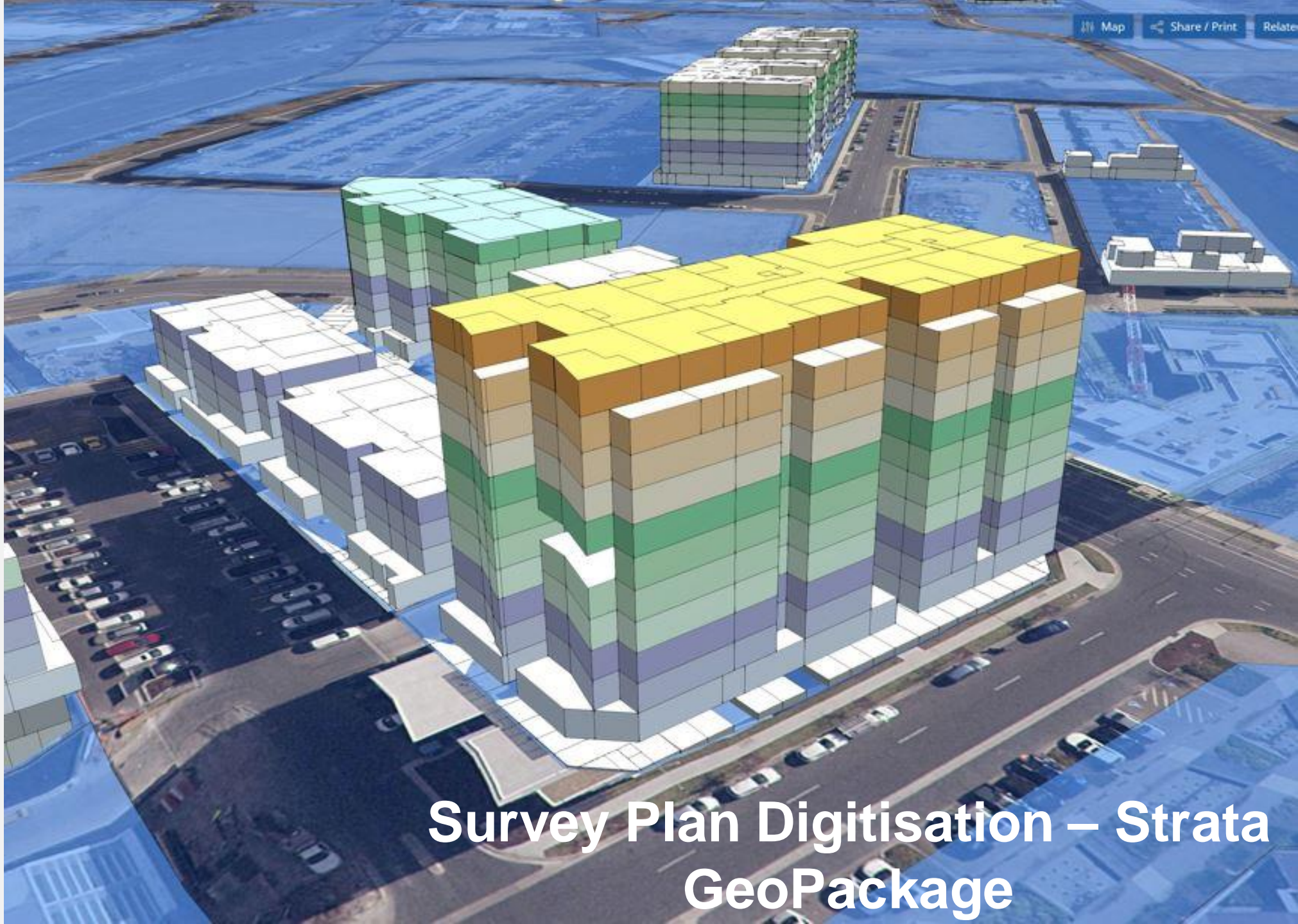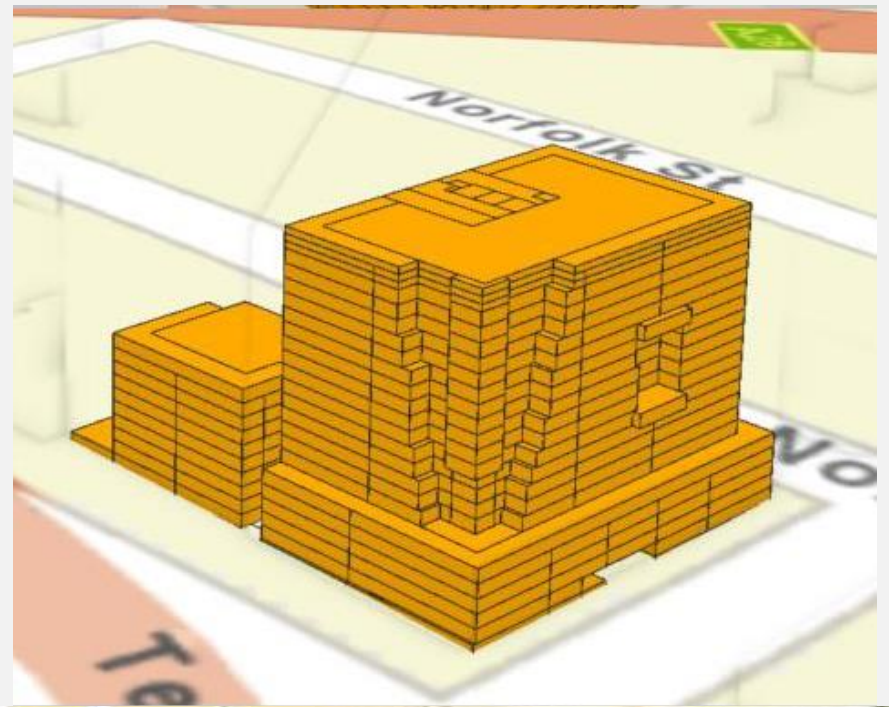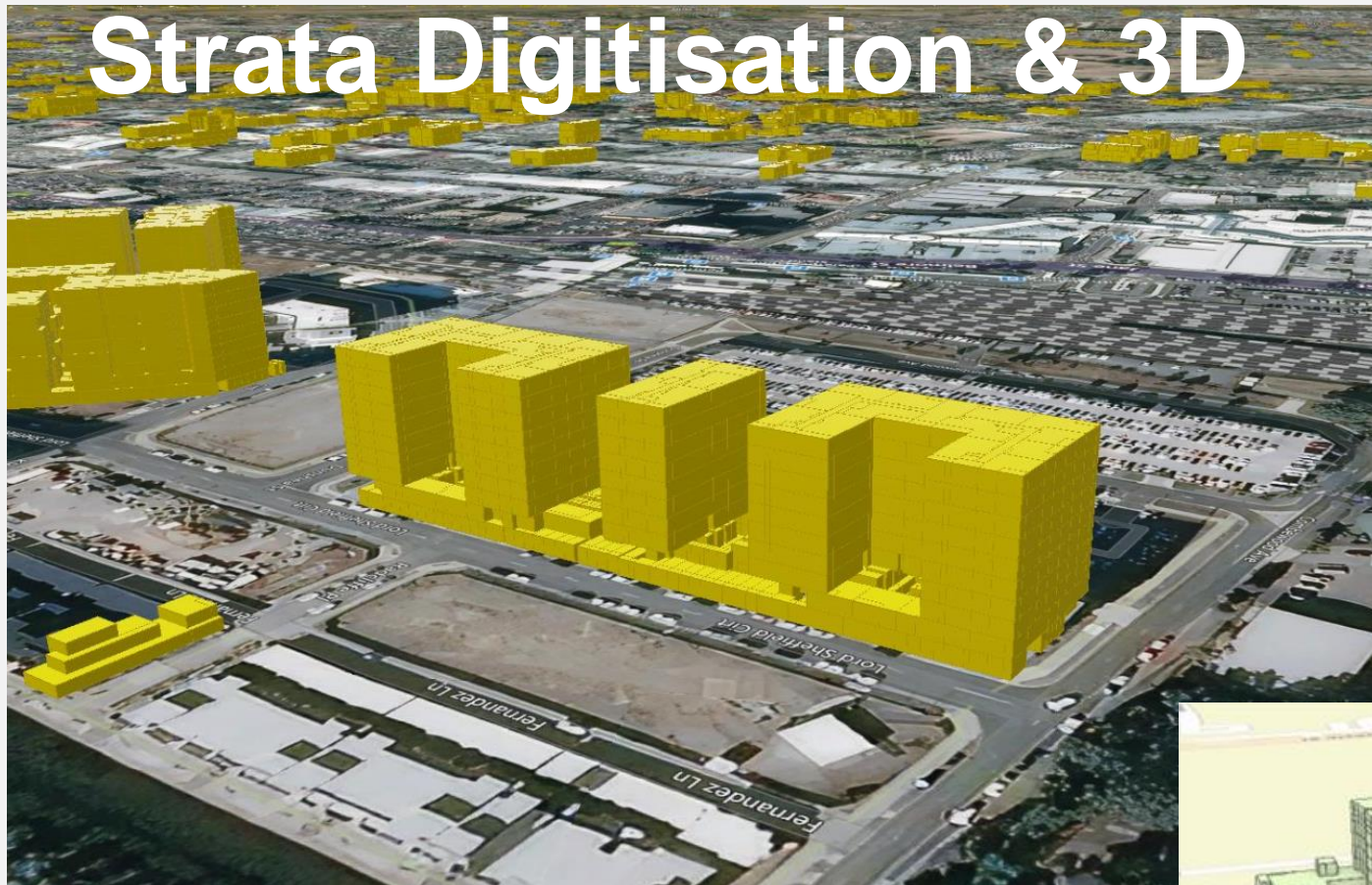- **Centroid Analysis and Cadastre of Known accuracy maps.**

Northern Beaches Council Data Comparison

Legend

Northern Beaches Council Data
Centroid Difference

- 0.000000 - 0.050000
- 0.050001 - 0.100000
- 0.100001 - 0.200000
- 0.200001 - 0.500000
- 0.500001 - 1.000000
- 1.000001 - 2.000000
- 2.000001 - 5.000000
- 5.000001 - 10.000000
- 10.000001 - 20.000000
- 20.000001 - 3187.233736

Survey Plan Digitisation - LANDXML

Survey Plan Digitisation – Strata GeoPackage

Strata Digitisation & 3D
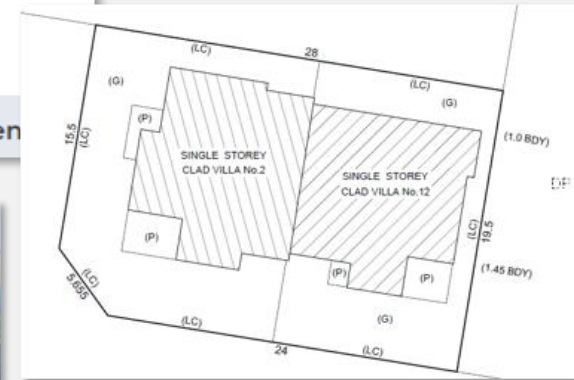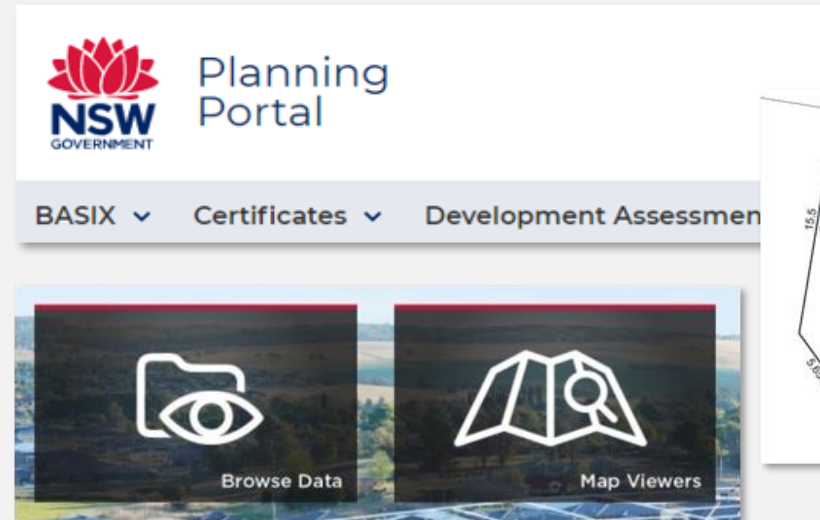
NEW: CADASTRE OF KNOWN ACCURACY

Cadastre NSW
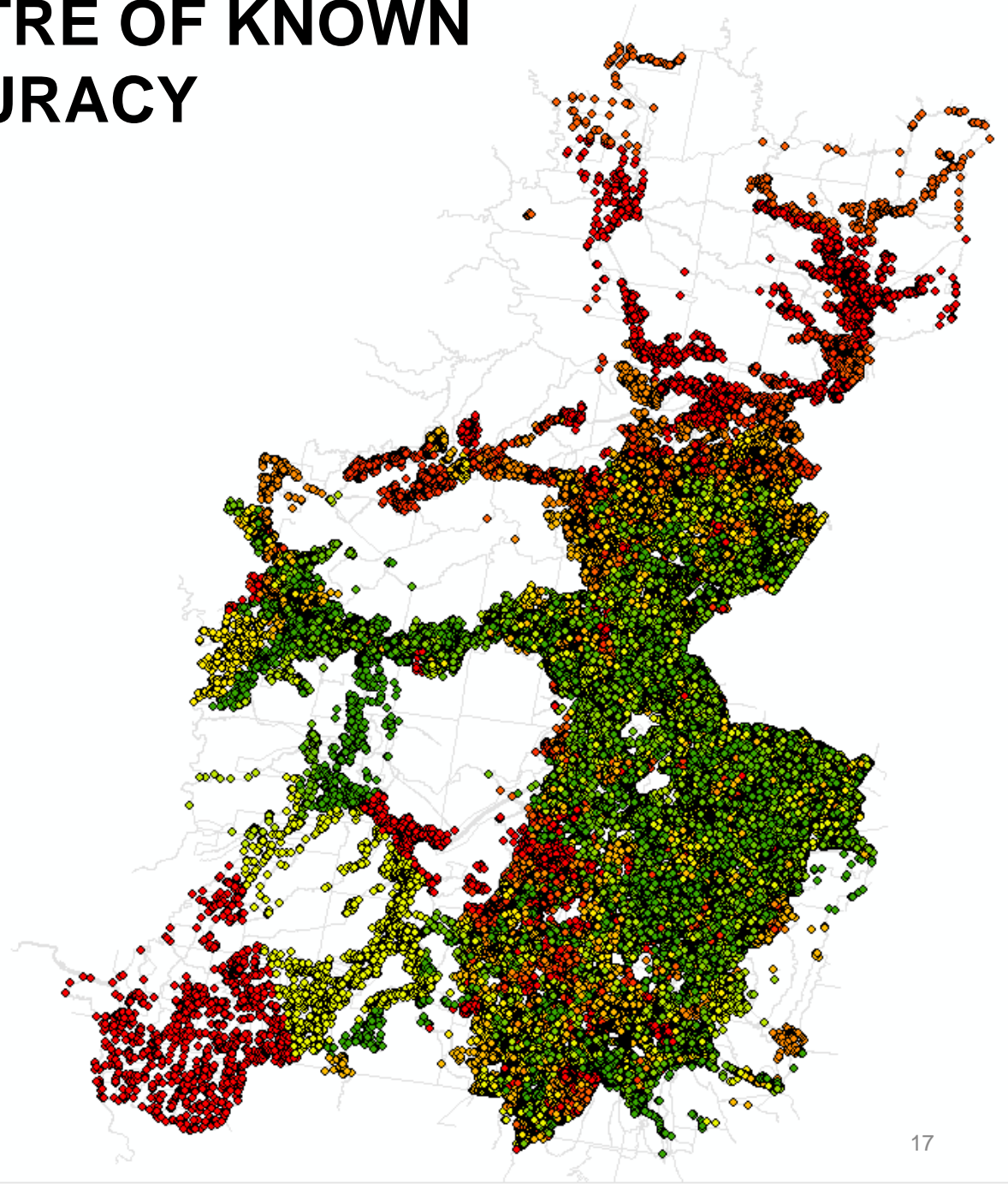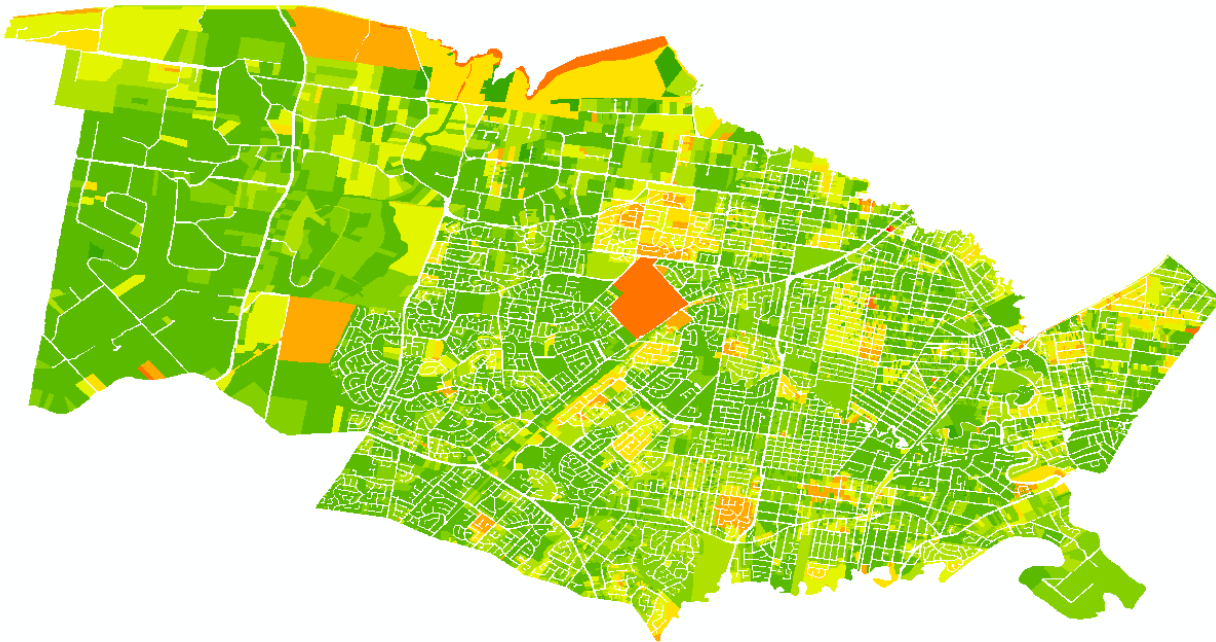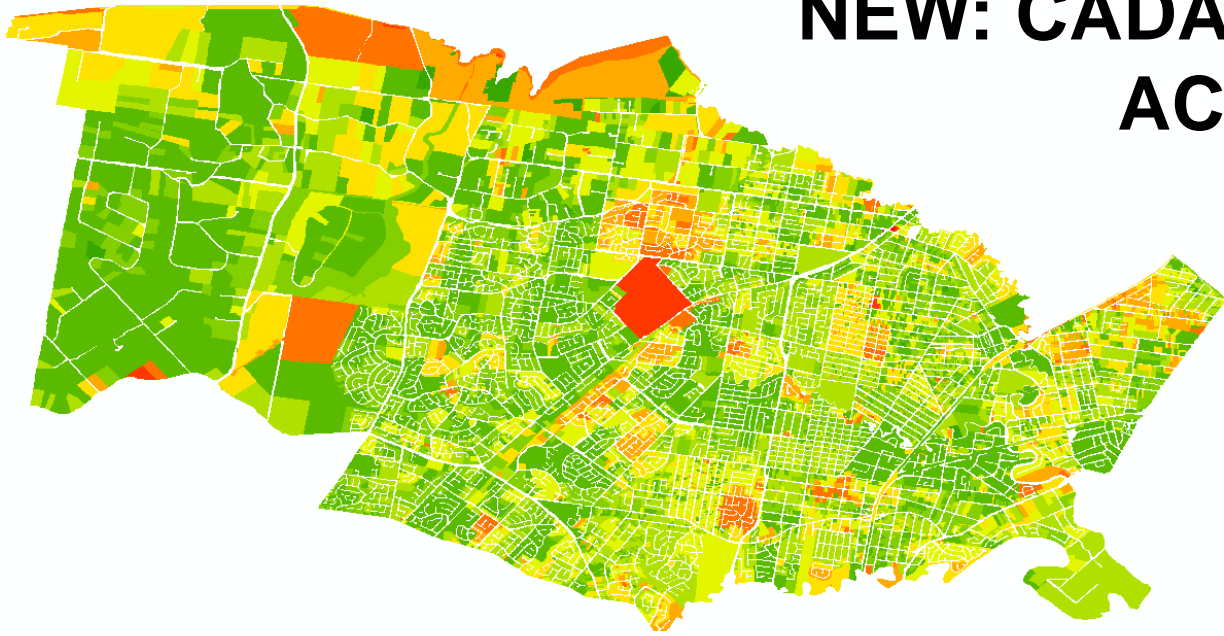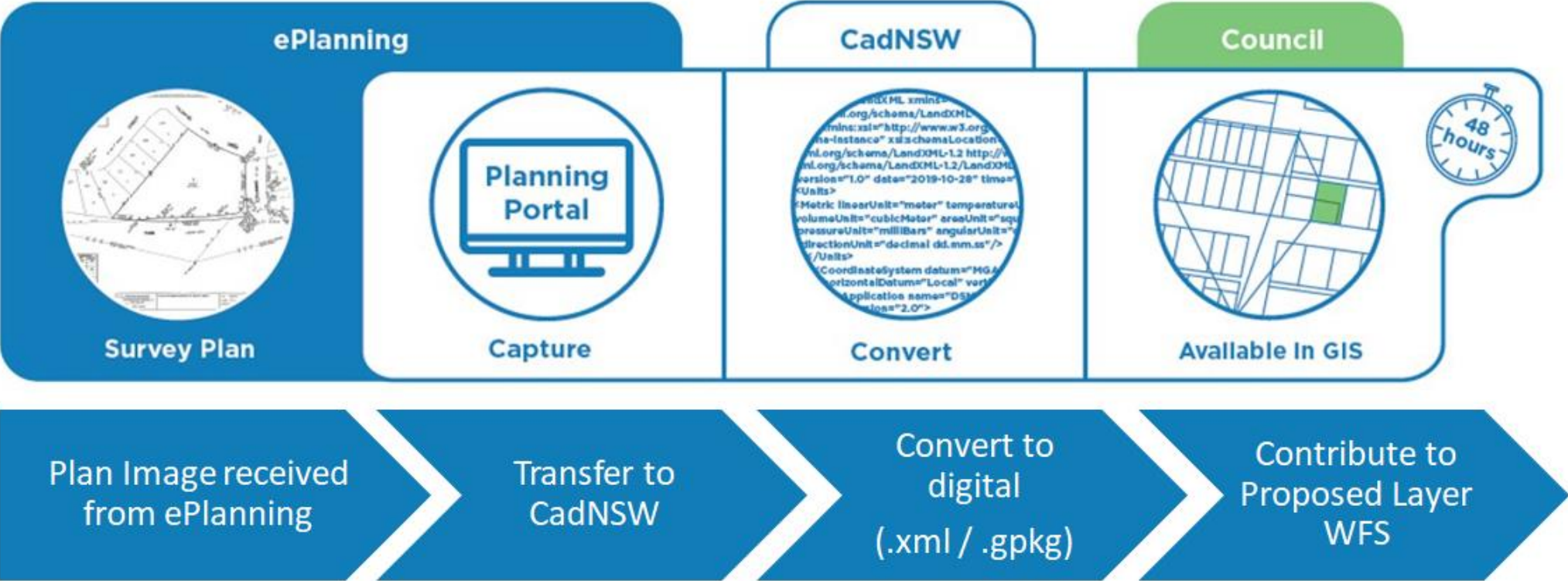
Cadastre NSW Program Update

System Enhancements and Integration

- NSW Planning Portal integration

- Proposed Strata Plan captures

- Development Application plan captures

- Proposed Addressing

- Spatial Collaboration Portal

- 3D Proposed Buildings

- NSW Digital Twin

ePlanning Alignment

What this means for Council

The ePlanning program

The ePlanning Program is an initiative of the Department of Planning, Industry and Environment. Its primary purpose is to drive the digital transformation of the NSW planning system.

1 January 2021
- 48 Local Councils *mandated* into service
- 80 Local Councils *registered* into service

1 July 2021
- 80 Local Councils *mandated*
  (outstanding regional and rural LGAs)
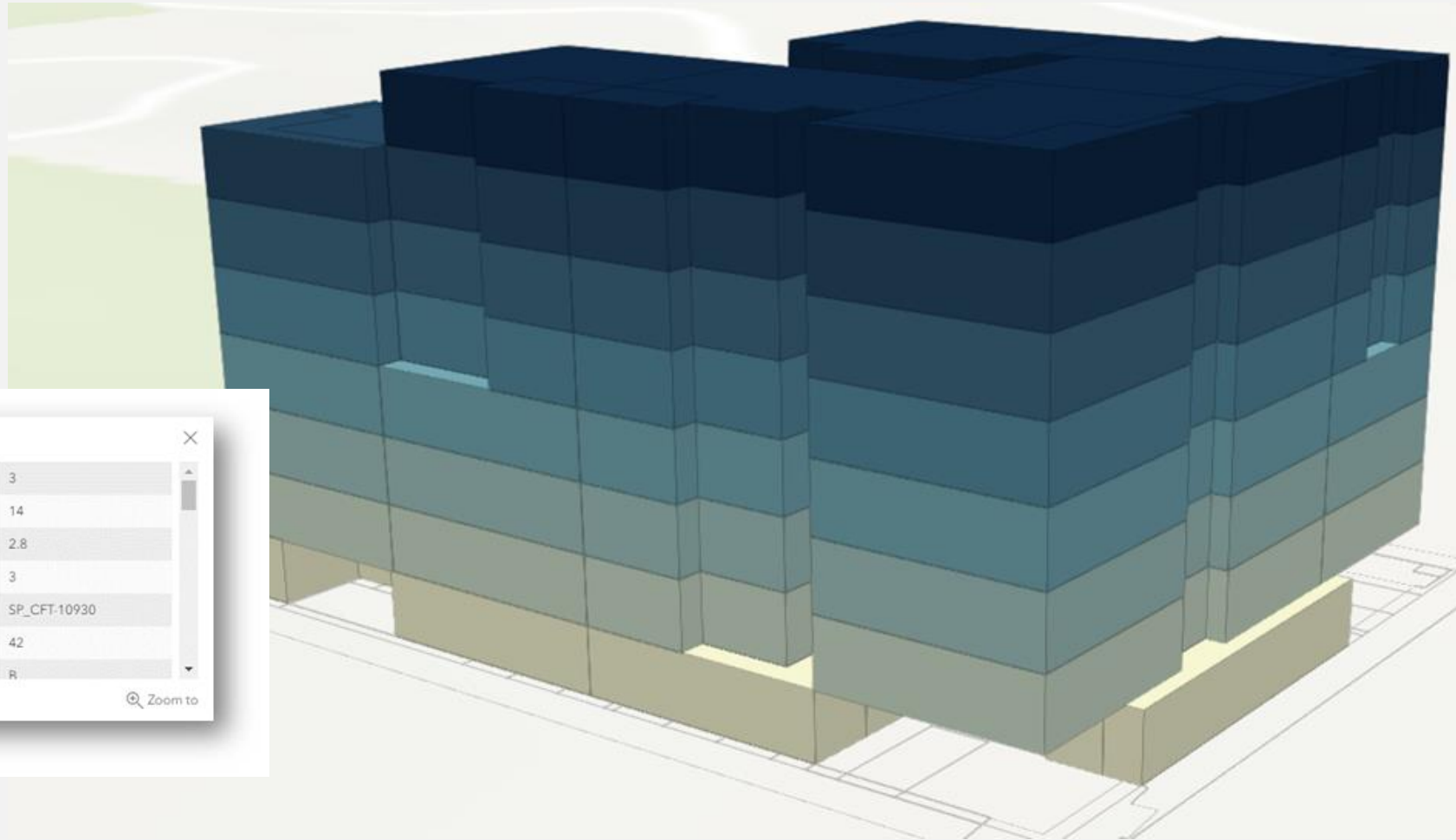- All 128 NSW Local Councils in ePlanning

Sydney Metro & Mandated Councils

- **No** council plans *loads* to CadNSW web portal
- Plans (.xml, .gpkg) available from portal for download
- All SubCert plans accessed from NSW Planning Portal
- Capture of DA plans of subdivisions expected FY2020/21
- *Proposed Layer* accessed via WFS

Regional and Rural Councils

- Option to continue to load via CadNSW web portal
- SubCert plans will be loaded on Council's behalf if lodged through NSW Planning Portal
- Capture of DA plans of subdivisions expected FY2020/21
- *Proposed Layer* accessed via WFS
- All plans of subdivision to be lodged through NSW Planning Portal from 1 July 2021
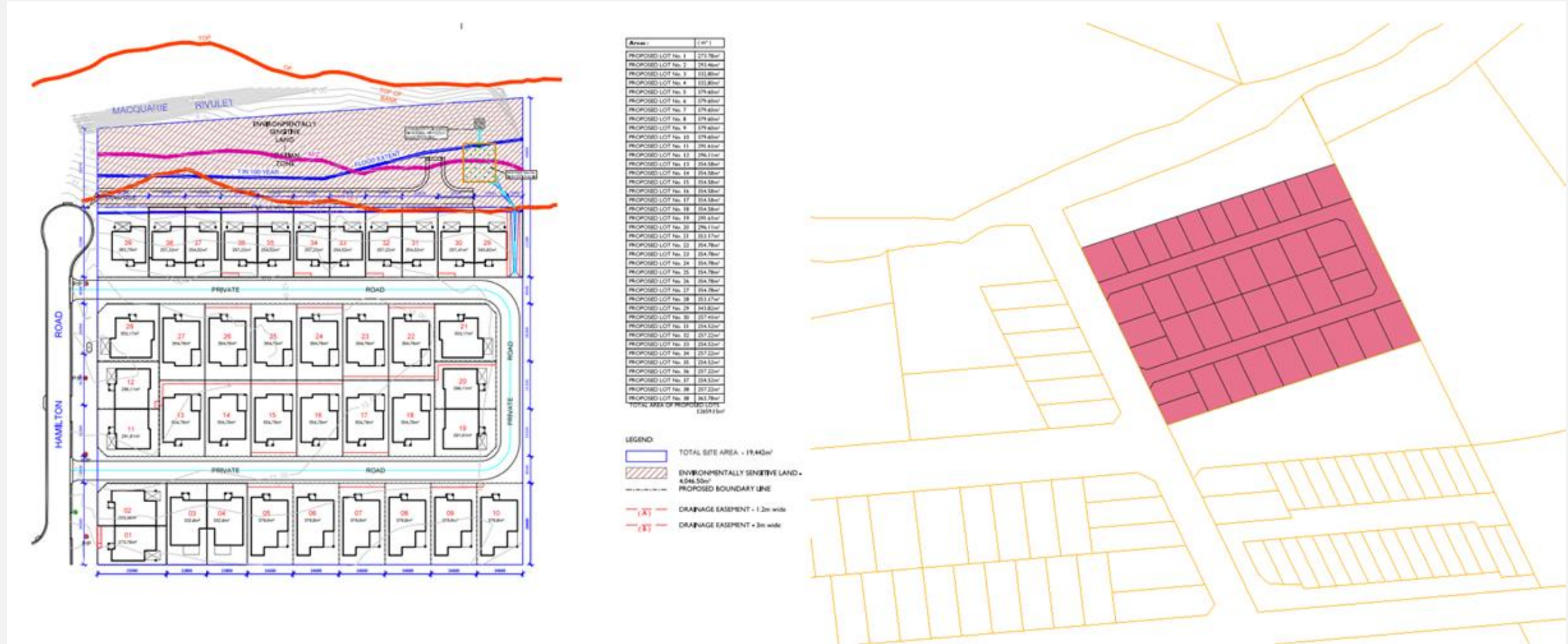
Strata Plans

Development Applications

Cadastre NSW Delivery

Erin Telford
Supervisor, Cadastral Development

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