

Vicmap Data Insights



29/8/2018
Melbourne
Rob Morrison



Environment,
Land, Water
and Planning



Vicmap Maintenance 2017 / 2018

Vicmap Improvement Projects

Vicmap Future Projects

2017/18 Vicmap Vector Data Maintenance





Vicmap Vector Data Maintenance 2017/2018

Vicmap vector data maintenance is provided by a private company through two contracts:

Vicmap Land Administration Themes (VLAT):

Vicmap Address, Vicmap Admin, Vicmap CL Tenure & Vicmap Property

Vicmap Topographic Themes (VTT):

Vicmap Admin (Topo versions of LGA and Localities)

Vicmap Elevation

Vicmap Features of Interest (VMFol)

Vicmap Hydro

Vicmap Index

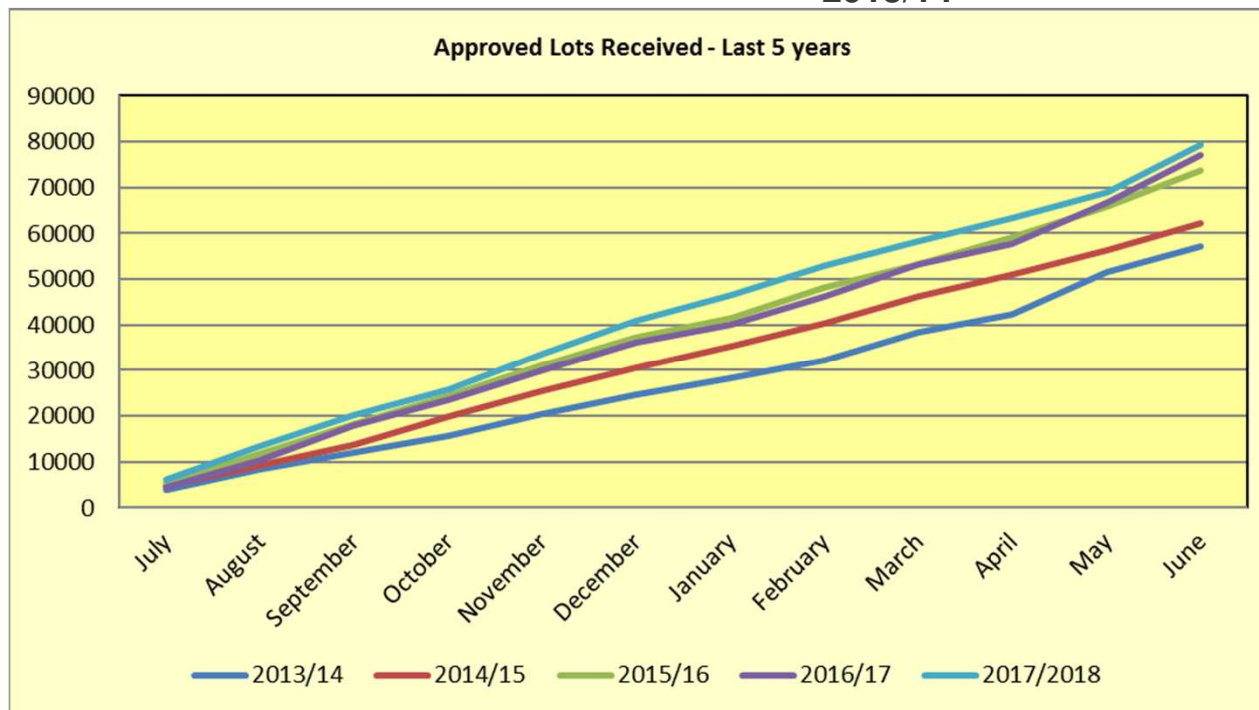
Vicmap Transport

Vicmap Vegetation

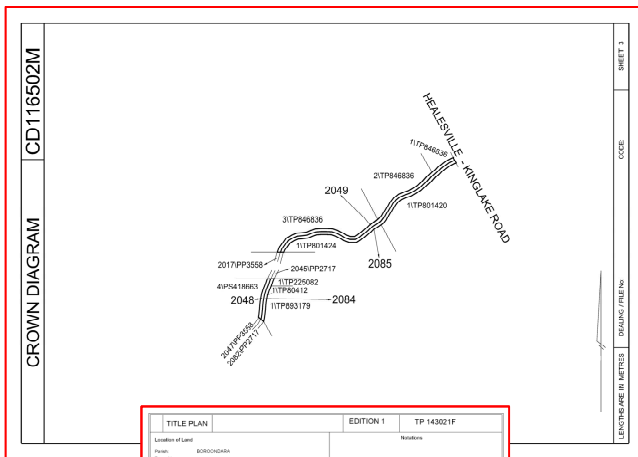
Parcel Subdivisional Activity

2017/2018: 79,401
(3% Increase) 2016/17:
76,977 Approved Lots

20,000 more lots
registered in
2017/18 than in
2013/14



NES VLAT = Admin, Address, CLT, Parcel & Property

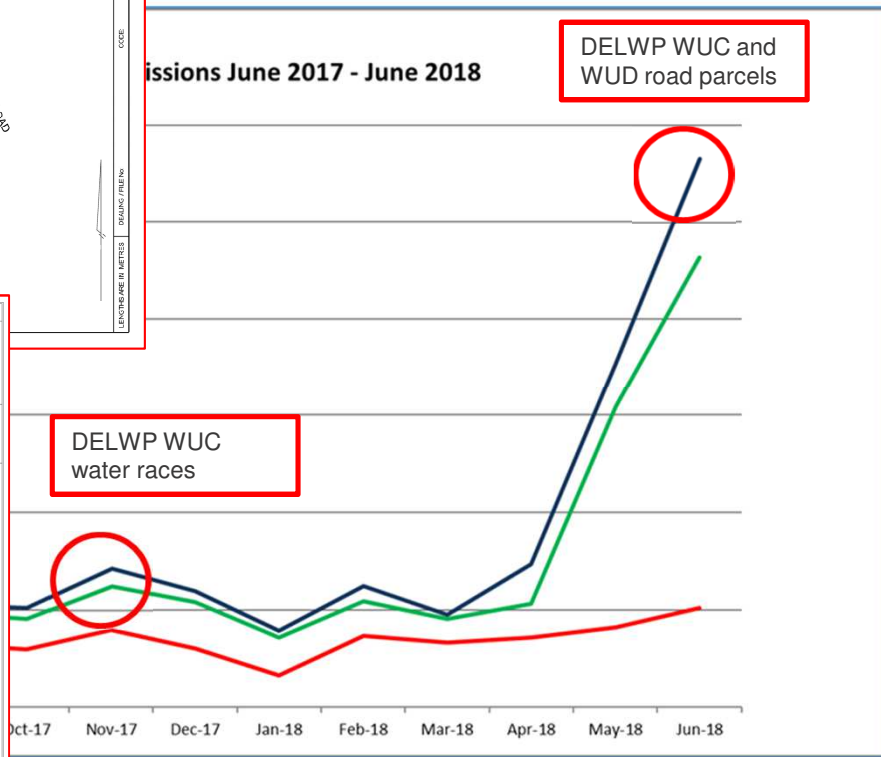
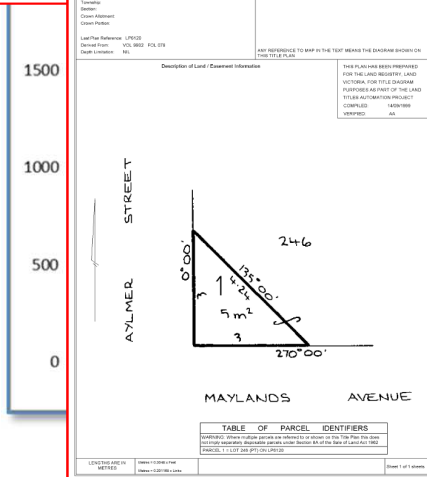


10,279 submissions 2017/2018 (5,498 in 2016/17)

Submissions June 2017 - June 2018

DELWP WUC and WUD road parcels

DELWP WUC water races



NES VLAT = Admin, Address, CLT, Parcel & Property

Who:

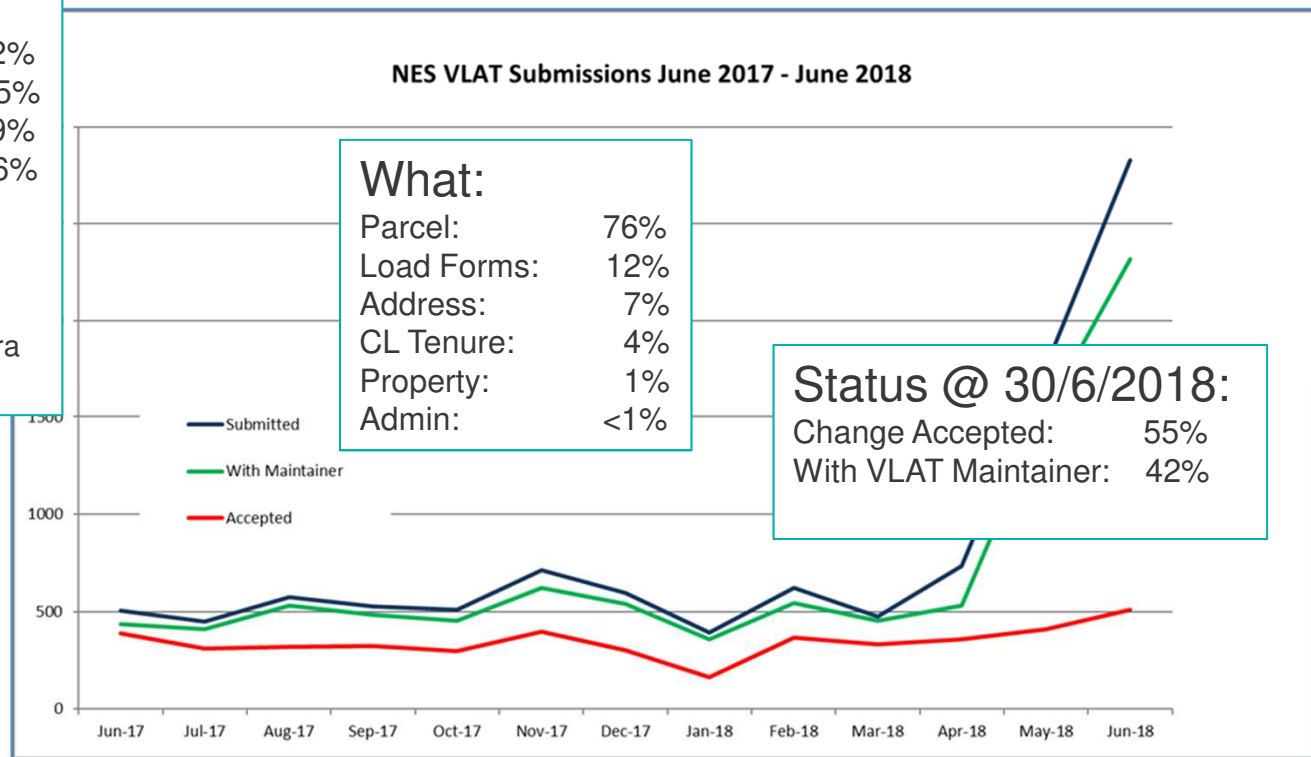
DELWP WUD: 42%
LGAs: 25%
DELWP WUC: 19%
DELWP Vicmap: 6%
Others:
AV, Coliban Water,
ESTA, MFB, South
East Water, SV,
Transport, VEC, Yarra
Valley Water

What:

Parcel: 76%
Load Forms: 12%
Address: 7%
CL Tenure: 4%
Property: 1%
Admin: <1%

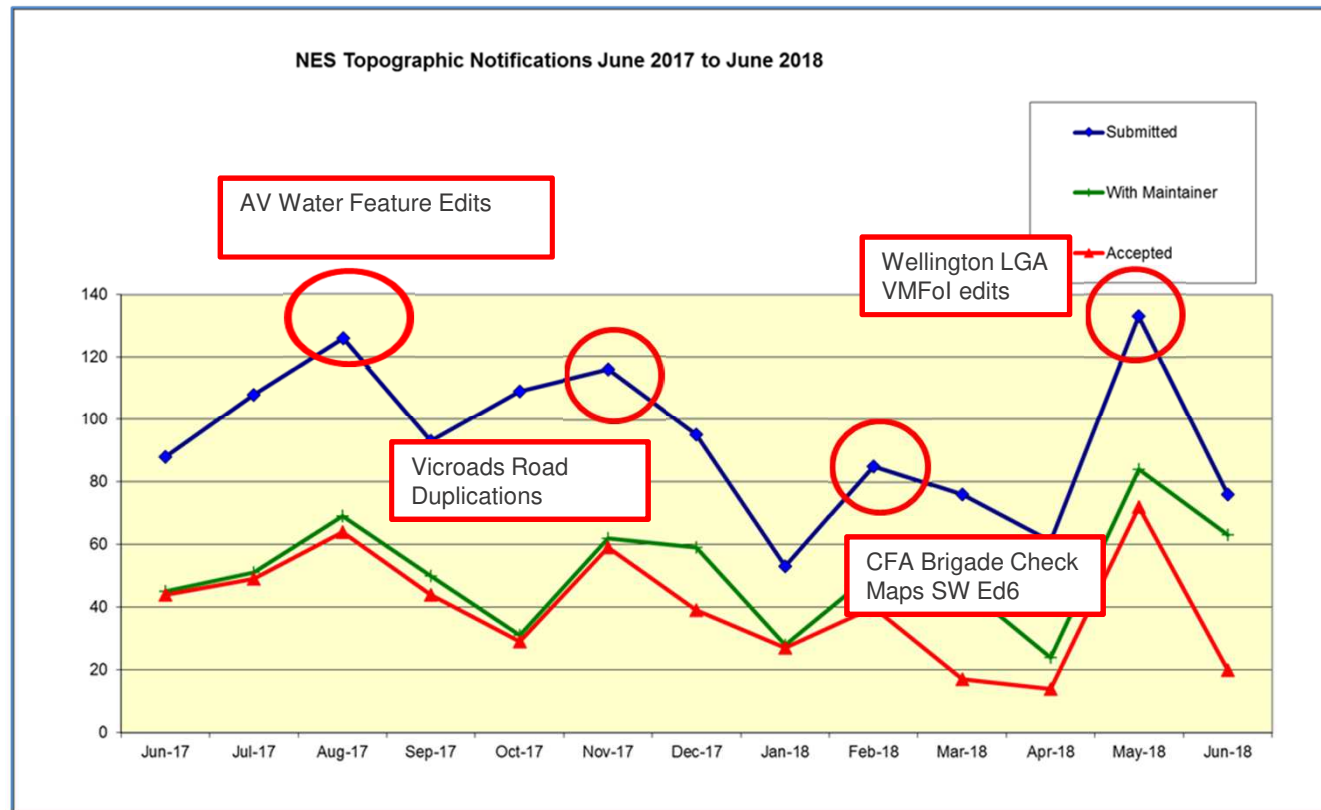
Status @ 30/6/2018:

Change Accepted: 55%
With VLAT Maintainer: 42%

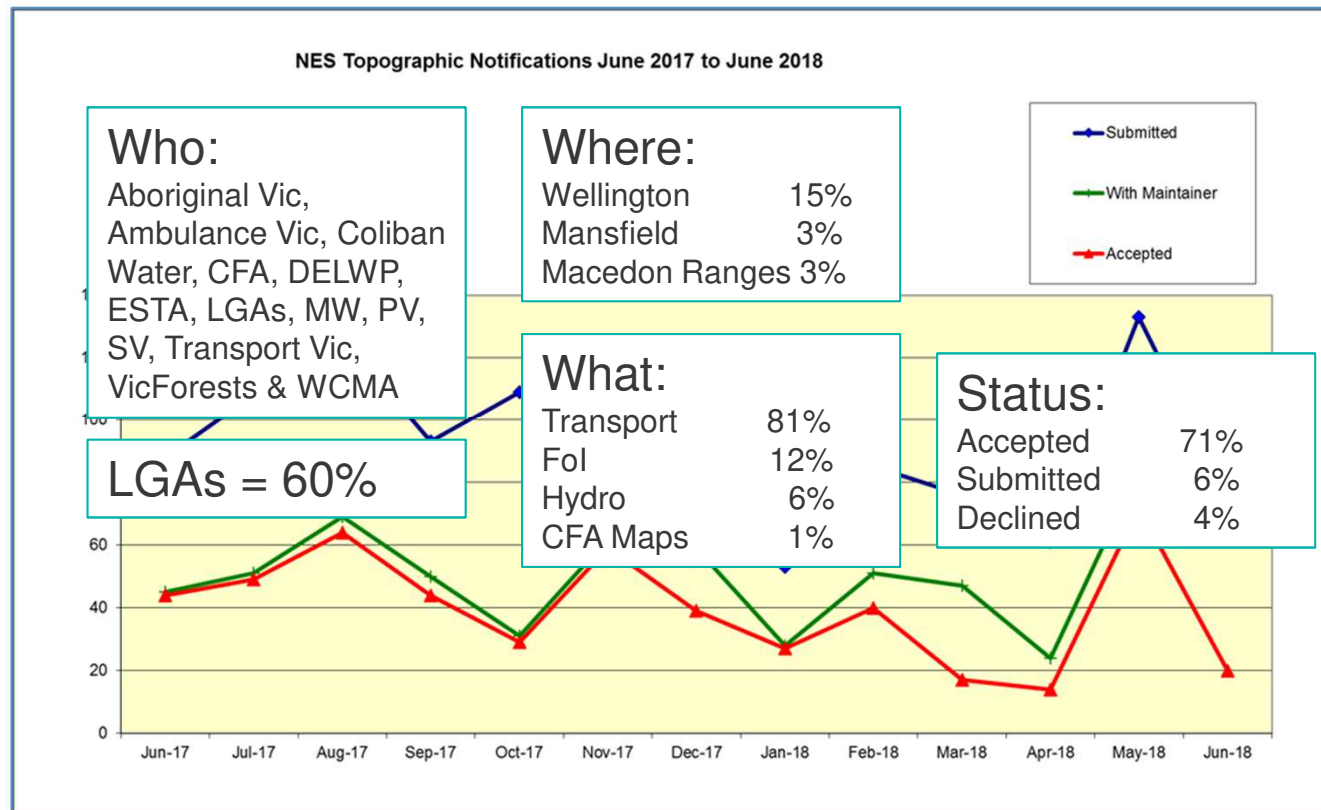


NES VTT = Elevation, FoI, Hydro, Transport & Vegetation

1,109 submissions 2017/2018 (1,276 2016/2017)



NES VTT = Elevation, FoI, Hydro, Transport & Vegetation



Authoritative Sourced Data for VMFoI

DJR:
Prisons, prison complexes, justice services & law courts



Authoritative full file data sourced twice annually

- Supplemented with change information as it occurs.

CFA:
NSPs, fire stations, fire lookouts, coastguard sites, emergency control centres, refuges



DET:
childcare centres, schools, special schools, school camps & education complexes



PV:
Camping grounds, picnic sites, lookouts

Custodial Sourced Data for VMFoI

Authoritative sourced data twice annual seed supplies



Identify	
Identify from:	VMFEAT.FOI_POINT
VMFEAT.FOI_POINT MOORoopna Park Primary School	
Location: 145.346015 -36.379907 Decimal Degrees	
Field	Value
UFI	54243501
PFI	5391
FEATURE_ID	5391
PARENT_FEATURE_ID	<null>
FEATURE_TYPE	education centre
FEATURE_SUBTYPE	primary school
FEATURE_STATUS	<null>
NAME	MOORoopna Park Primary School
NAME_LABEL	Mooroopna Park Primary School
PARENT_NAME	<null>
CHILD_EXISTS	<null>
AUTH_ORG_CODE	101
AUTH_ORG_ID	5088 C1
AUTH_ORG_VERIFIED	26/04/2018
VMADD_PFI	54114597
VICNAMES_ID	17630
VICNAMES_STATUS_CODE	10
THEME1	<null>
THEME2	<null>
STATE	VIC
CREATE_DATE_PFI	20/05/2009 5:48:03 PM
SUPERCEDED_PFI	<null>
CREATE_DATE_UFI	1/05/2018 6:00:58 AM
OBJECTID	1559597
SHAPE	Multipoint
Identified 1 feature	
Table Of Contents Identify	

Data Improvement Projects





Projects Undertaken 2017/2018

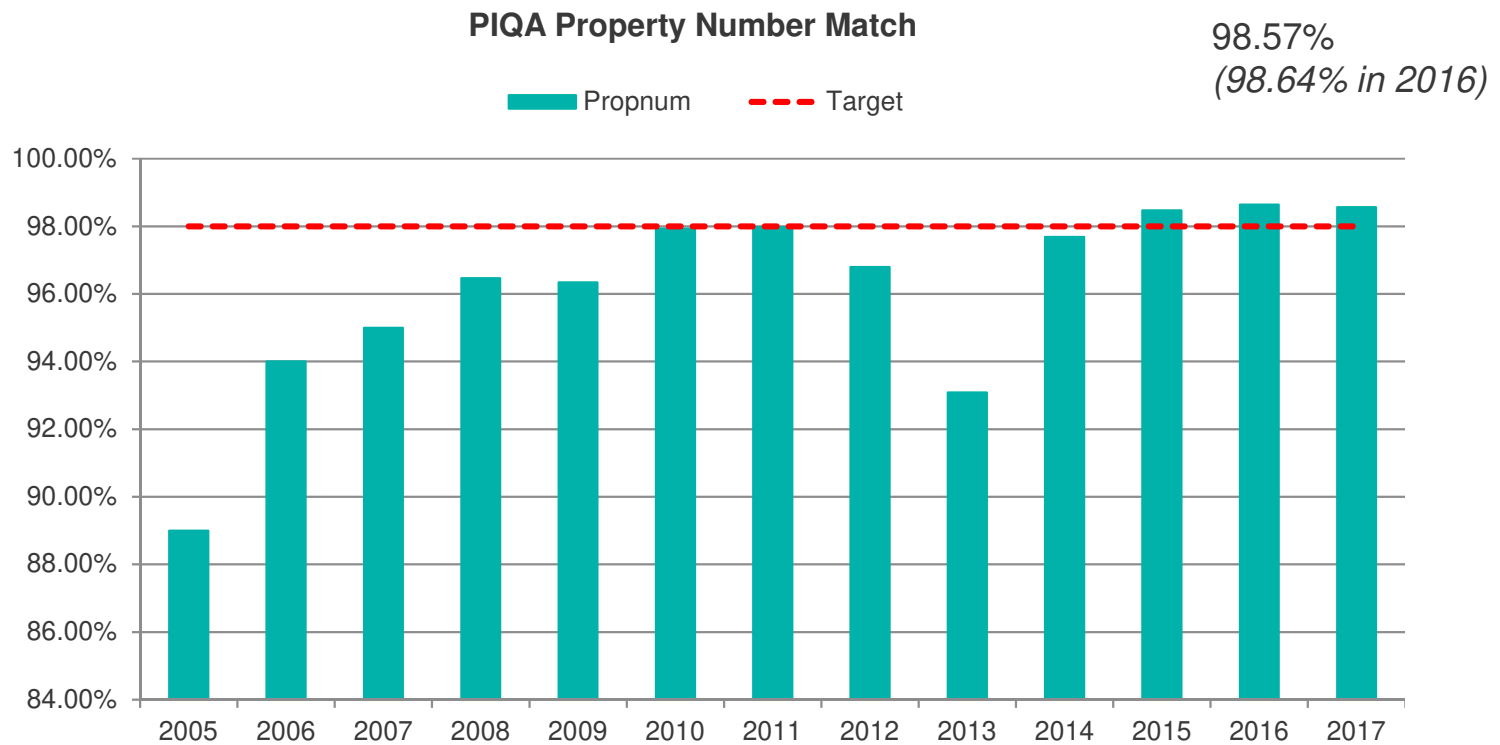
- **Property Improvement Quality Audit 2017/2018**
- **Vicmap Topo Data Verification Project**
- **CFA Check Maps Processing**
- **VTT Cross Border Data Incorporation**
- **DELWP Rivers Health Vicmap Hydro watercourse improvement**



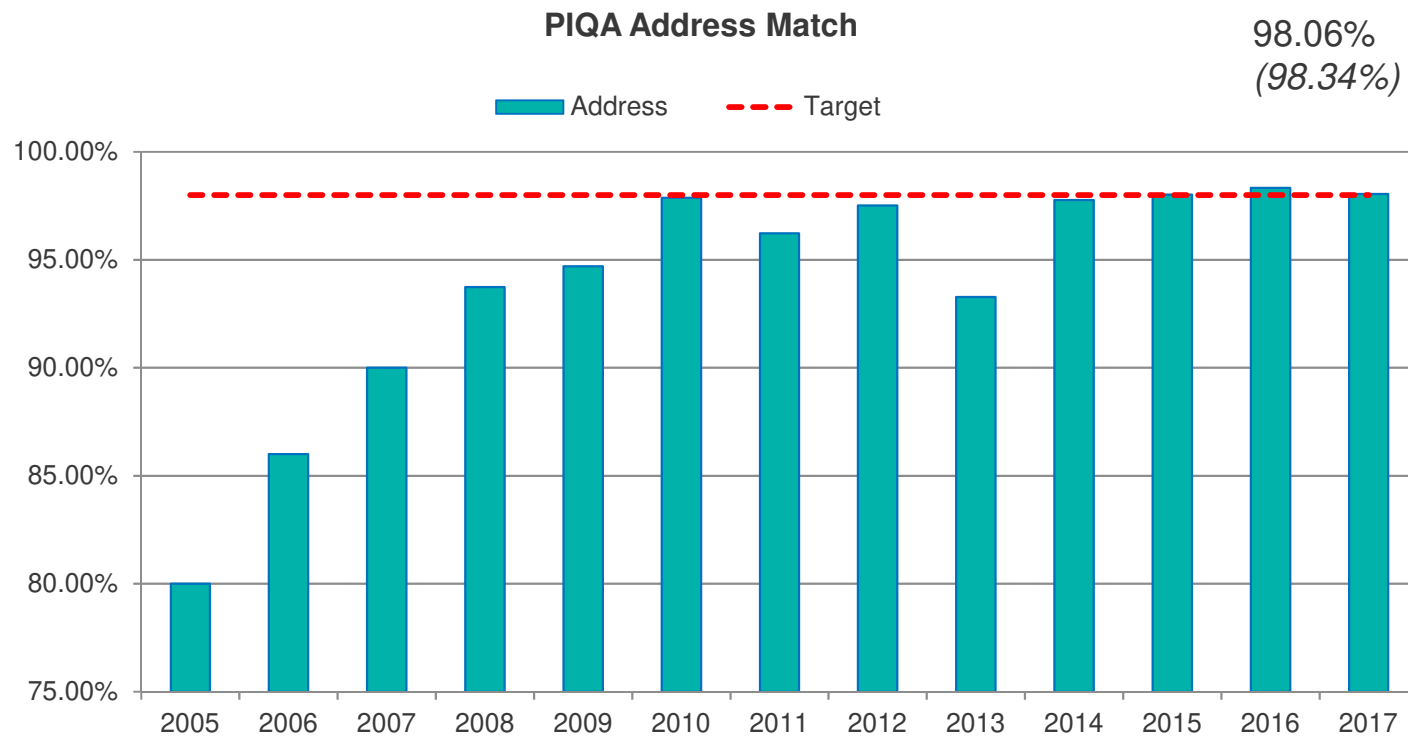
Property Information Quality Audit 2017/2018 (13th Year)

1. Establish the true aspatial match rates between Local Government Authorities Property and Rates bases and Vicmap Property and Vicmap Address (and Vicmap Transport) on an annual basis.
2. Provides a completeness measure of LGA data against Vicmap
3. Identifies areas of anomaly between the data sources and Vicmap
4. All 79 LGAs provided Property and Rates Bases (Thankyou!)
5. All comparisons were completed by May by Julie Jenner and Katie Rees with individual LGA reports distributed.
6. All LGAs have received their result tables.
7. No Council Reference Number (Crefno) matching was done this year.

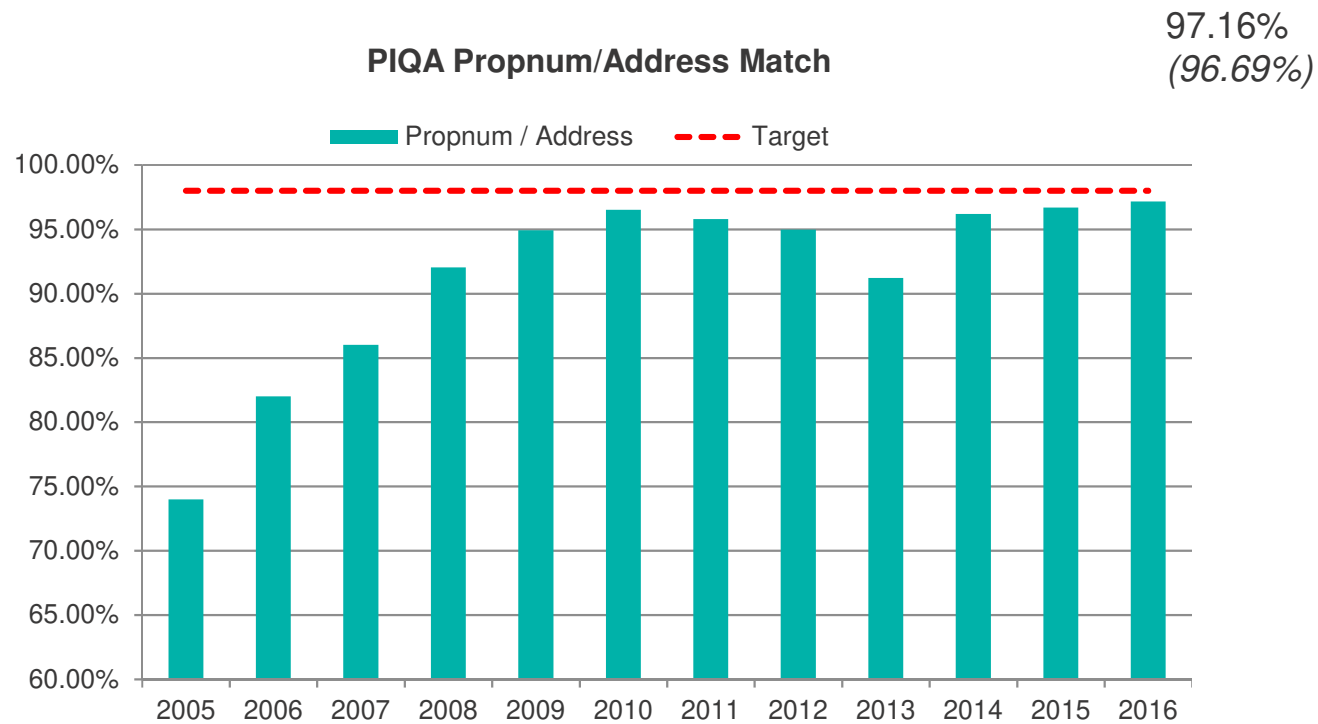
PIQA 2017/18 Results: Propnum Match



PIQA 2017/18 Results: Address Match



PIQA 2017/18 Results: Address/Prop Num Match



PIQA 2017/2018 Results

PROPNUM

PIQA 2017/18 overall Propnum match rate was 98.57% (*Down 0.07% from 2016/17*)

Match rate	2017-18	2016-17
>98%	65	59
95-98%	11	17
<95%	3	3

2400 records



Lowest 2017/18 LGA Propnum match rate is 91.58%

49 LGAs (29 Rural) Improved

1 LGAs match rate drop > 1%

PIQA 2017/2018 Results

ADDRESS

PIQA 2017/18 overall Address match rate was 98.08% (*Down 0.13% from 2016/17*)

Match rate	2017-18	2016-17
>98%	57	54
95-98%	20	20
<95%	2	5

4400 records



Lowest 2017/18 LGA Address match rate is 61.32%

51 LGAs (29 Rural) Improved

0 LGAs match rate drop > 1%

PIQA 2017/2018 Results

ADDRESS / PROPNUM COMBINATION

Combined PIQA 2017/18 PIQA match rate match rate was 97.16% (*Up 0.38% from 2016/17*)

Match rate	2017-18	2016-17
>98%	40	32
95-98%	29	31
<95%	10	16



Lowest 2017/18 LGA Address/Propnum combination match rate is 59.16%

55 LGAs (29 Rural) Improved

3 LGAs match rate drop > 1%

13000 records

PIQA 2017/2018 Results

Revised LGA Individual Reports

PROPERTY INFORMATION QUALITY AUDIT (PIQA)	
Individual LGA Report for: <COUNCIL_NAME>	
Data Supplied by: <Council_contact>	
<hr/>	
Vicmap Property (VP) Date:	24/1/2018
Property & Rates (P&R) Date:	31/1/2018
<hr/>	
Total records in Rates:	5471 (Ungrouped) 5470 (Grouped)
Total records in Vicmap Property:	6134
Total records in Vicmap Address:	6134
Total records in Vicmap Parcel:	10350
<hr/>	
1. PROPNUM	
<hr/>	
Total records in Rates:	5471
Number of P&R Records that exist in VP:	5362 (98.0077%)
Number of P&R records not in VP:	109
Number of VP records with NCPR as Propnum:	83
which are linked to Common Properties:	6
which are linked to Reserves:	1
which are linked to Crown Parcels:	29
which are linked to Accessory Lots (eg, carpark):	0
Note that NCPR records could also be linked to TPs, LPs or PSs but not all have been listed here. Also a single NCPR record could be linked to several parcels hence the numbers sometimes do not appear to add up correctly.	
Number of VP Records that have no Propnum:	670
which are primary properties:	291 (Approved: 557 Proposed: 34)
which are base properties:	79 (Approved: 78 Proposed: 1)
<hr/>	
Number of VP Property Records (primary - both approved & proposed) with no Propnum that are linked to:	
Plans greater than P5600000 (not CM or RES):	33
Title Plans (TP):	38
Other Plans (<P5600000, CP, CS, RP, LP, SP):	32
Common Properties (CM):	1
Reserves (Res, Res1, etc):	2
Crown Parcels (Crown_Status=C):	418
Crown allotments (desc_type 14), etc: 15	
Total:	539
VP Property records with no propnum that are multi-parcel:	147
(Note that only properties with a one-to-one relationship to a parcel have been included as there is no hard and fast rule as to which parcel should be chosen in a multi-parcel scenario. This is more prominent in regional based councils that have large tracts of farming land where there is one property linked to many parcels.)	
<hr/>	
Number of Propnums in VP that are not in P&R:	5
where VP record is Proposed:	0
where VP record is Approved:	5

2. ADDRESS	
<hr/>	
Total records in Rates:	5471
Number of P&R Addresses that exist in vicmap Address (VA):	5398 (98.6657%)
(regardless of Propnum match status)	
Number of P&R Addresses not in VA:	73
of which are standard P&R Addresses (includes house number)	58
Number of P&R Addresses with House_No_1 populated:	3667 (67.0261%)
Number of P&R Addresses without House_No_1 populated:	1804
Number of Duplicate P&R Addresses (Individual):	1705
(where address string, road name, road type, road suffix and locality match)	
Number of Duplicate P&R Addresses (Grouped):	352
Number of Secondary addresses in VA:	12
Number of UNNAMED roadname records in VA:	0
<hr/>	
Number of Invalid VA Address Records that have a valid P&R Property Number that are linked to:	
Code1. Street names partially match:	0
Code2. Street names do not match at all:	5
Code3. Street types do not match:	4
Code4. No house number details in VA:	0
Code5. No house number details in P&R:	0
Code6. House number details are different:	3
Code7. Locality is different for other details same:	9
Code8. Other miscellaneous differences:	20
Total:	41
<hr/>	
3. PROPNUM/ADDRESS COMBINATION	
<hr/>	
Number of P&R records that have the same propnum/address combos as vicmap:	5289 (96.6734%)
Number of P&R propnum/address combos that do not match vicmap:	182
where Propnum matches:	37
where Address matches:	73
where neither propnum nor address matches:	36
where both match but to different records:	36

Previous Years' PIQA Results Summary

PROPNUM MATCH

PIQA 2017-2018:	5362 (98.0077%)
PIQA 2016-2017:	5371 (96.1511%)
PIQA 2015-2016:	5346 (95.88%)
PIQA 2014-2015:	5239 (94.2945%)
PIQA 2013-2014:	0 (0%)
PIQA 2012-2013:	5251 (95.0063%)
PIQA 2011-2012:	5230 (94.8495%)
PIQA 2010-2011:	5207 (94.8452%)
PIQA 2009-2010:	4612 (91.3448%)
PIQA 2008-2009:	4812 (87.8583%)
PIQA 2007-2008:	0 (0%)
PIQA 2006:	4420 (90.4255%)
PIQA 2005:	0 (0%)

Property Information Quality Audit

2017/2018 Findings

- All three categories saw LGA / Vicmap match rates slightly regress
- Many LGAs improved match rates (but only slightly)
- Clearer individual LGA reports were generated.
- Kennet River is now Kennett River in Colac-Otway P & R!

This affected over 200 addresses

Hi Katie,

😊 your work is very important and can help us to improve data quality. We know how important the data quality is. I understand that this process is not easy, especially data from different councils may be structured differently.

THANKS



A MILLION

Kind regards,

Li Jiang



VTT Data Verification Project

Builds upon state wide investigations VMFoI 2010 – 2014

Mainly looking at data completeness, clangers and changes since the last investigation.

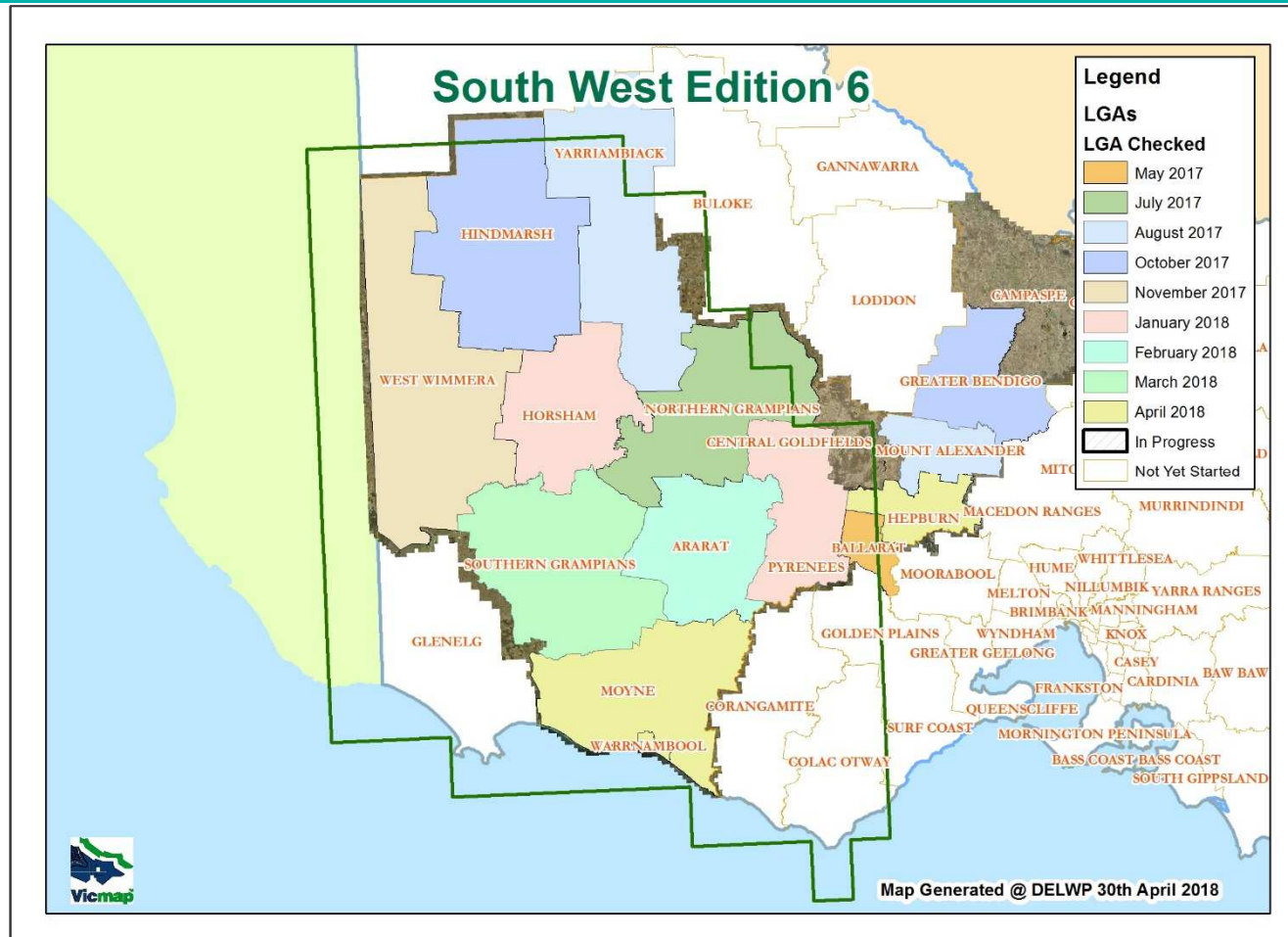
Utilises latest CIP imagery (Generally 2016 / 2017 & 2017 / 2018 flying seasons)

North West Ed 6 Investigation May - October 2017

South West Edition 6 investigation November 2017 - April 2018

North East Edition 6 investigation May - October 2018

South West Edition 6 Mapbook Trawl and Crawl



South West Edition 6 Mapbook Verification Project

Stats for South West Map book extent:

Data Verification Project								2017/2018	
			LGA	Point	Line	Poly	General	Total	
2017 Week 49	Dec-17		Pyrenees LGA	1,807	274	171	993	3,245	
2017 Week 51	Jan-18		Ararat LGA	774	142	190	823	1,929	
2018 Week 2	Jan-18		Southern Grampians (Part 1)	1,773	86	252	1,516	3,627	
2018 Week 6	Feb-18		Southern Grampians (Part 2)	1,414	76	144	559	2,193	
2018 Week 8	Feb-18		Warrnambool LGA & Moyne LGA Part 1	3,386	319	239	1,082	5,026	
2018 Week 10	Mar-18		Moyne LGA Part 2	1,490	153	130	878	2,651	
2018 Week 14	Mar-18		Moyne LGA Part 3	1,939	120	157	1,084	3,300	
2018 Week 16	Apr-18		Hepburn LGA	2,219	360	196	704	3,479	
Totals				14,802	1,530	1,479	7,639	25,450	17

4158 : Vicmap TEN: 2018 week 10
IN_LANDMARK_AREA_POLYGON 68 31
TR_ROAD 725 564
TR_ROAD_INFRASTRUCTURE 411 299

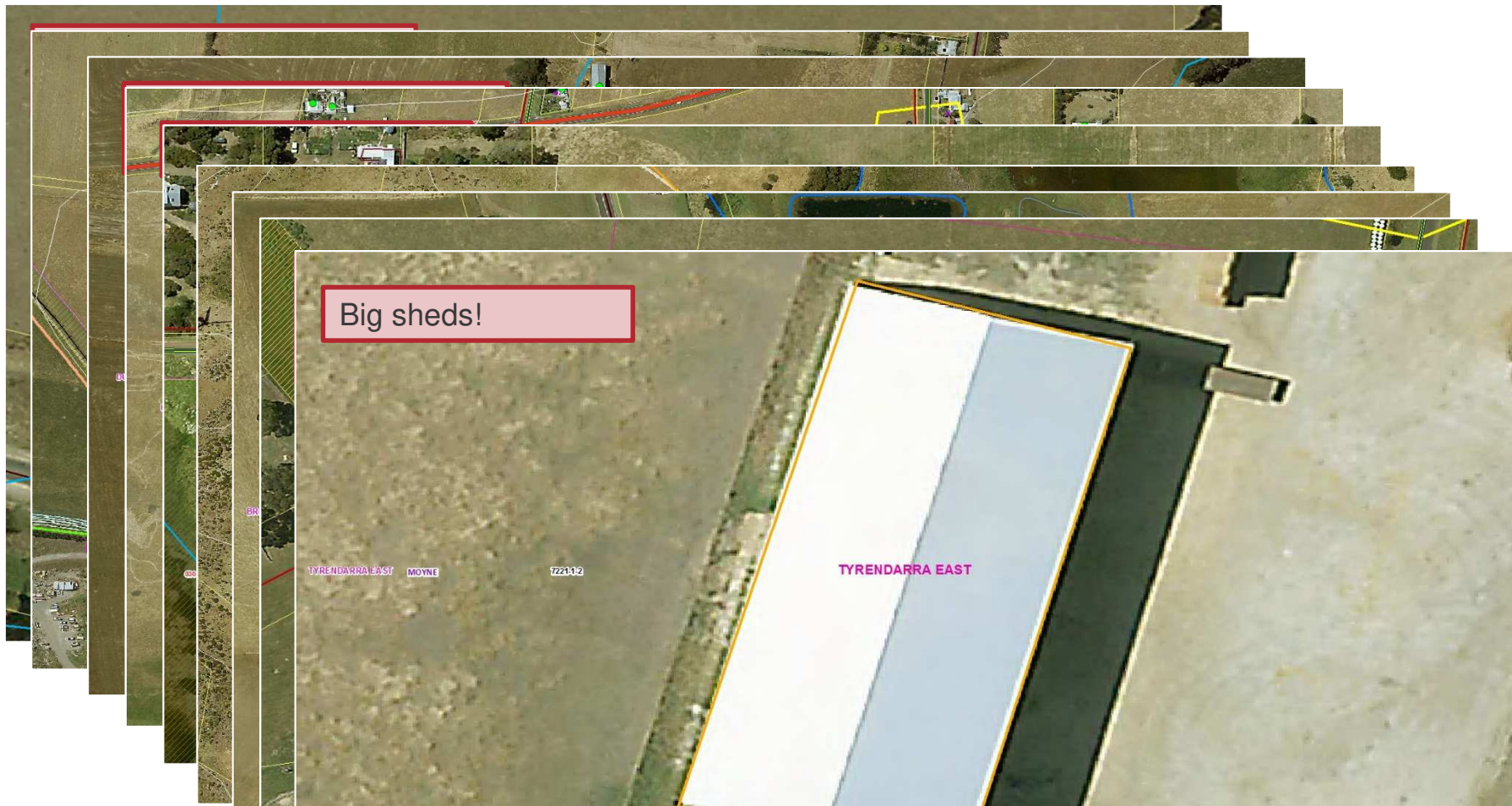
South West 2016 Dec 18 20cm MGA54
South West 2016 Dec 18 20cm MGA54

4158 : Vicmap TEN: 2018 week 10
HY_WATERCOURSE 55 23
HY_WATER_AREA_POLYGON 81 16
IN_BUILDING_AREA_POLYGON 90 11
IN_BUILDING_POINT 1314 1195
IN_LANDMARK_POINT 65 2
IN_UTILITY_AREA_POLYGON 4 1
TR_ROAD 4 4
TR_ROAD_INFRASTRUCTURE 1 1

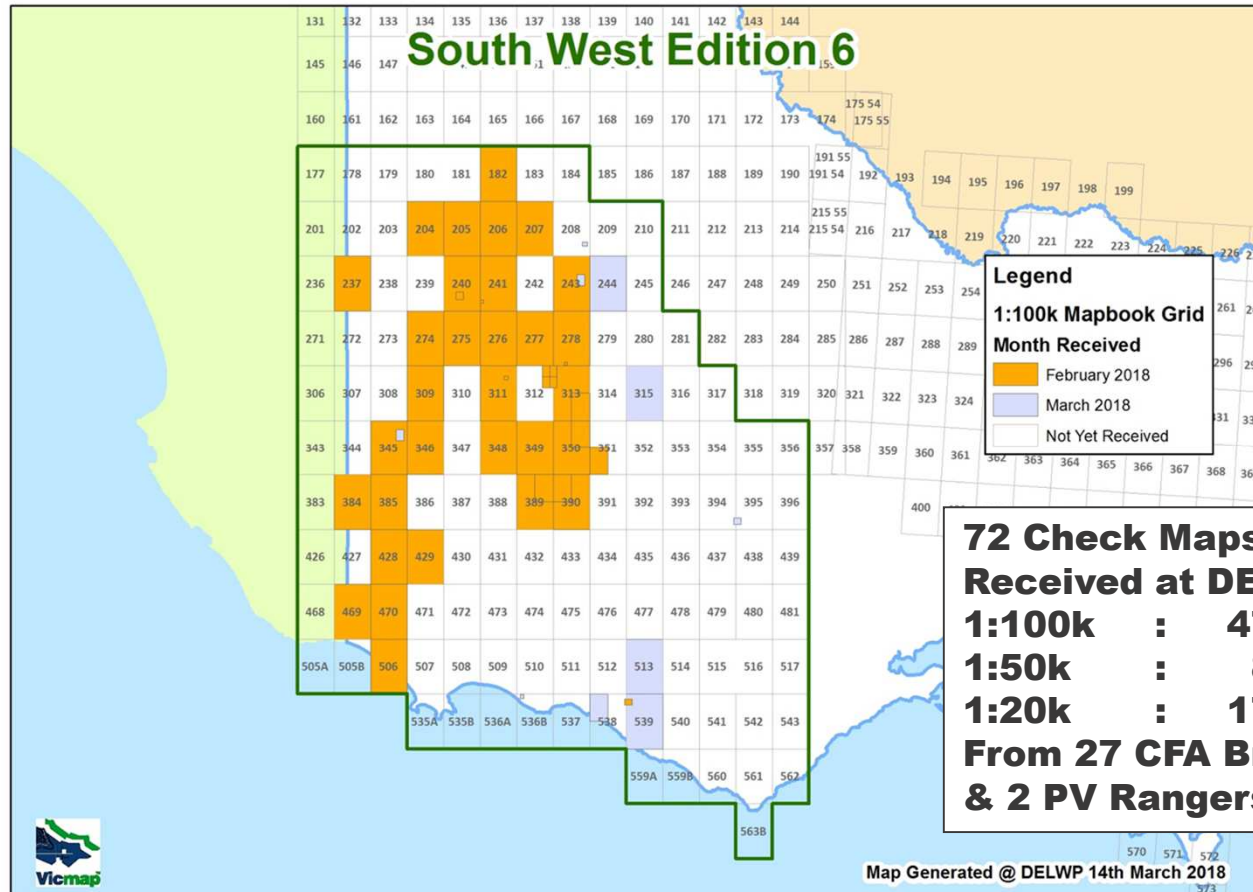
South West 2016 Dec 18 20cm MGA54
South West 2016 Dec 18 20cm MGA54

4147 : Moyne LGA Road Centrelines
AD_LGA_AREA_POLYGON 4 4
AD_LOCALITY_AREA_POLYGON 82 82
TR_ROAD 2454 2265
TR_ROAD_INFRASTRUCTURE 1191 1064

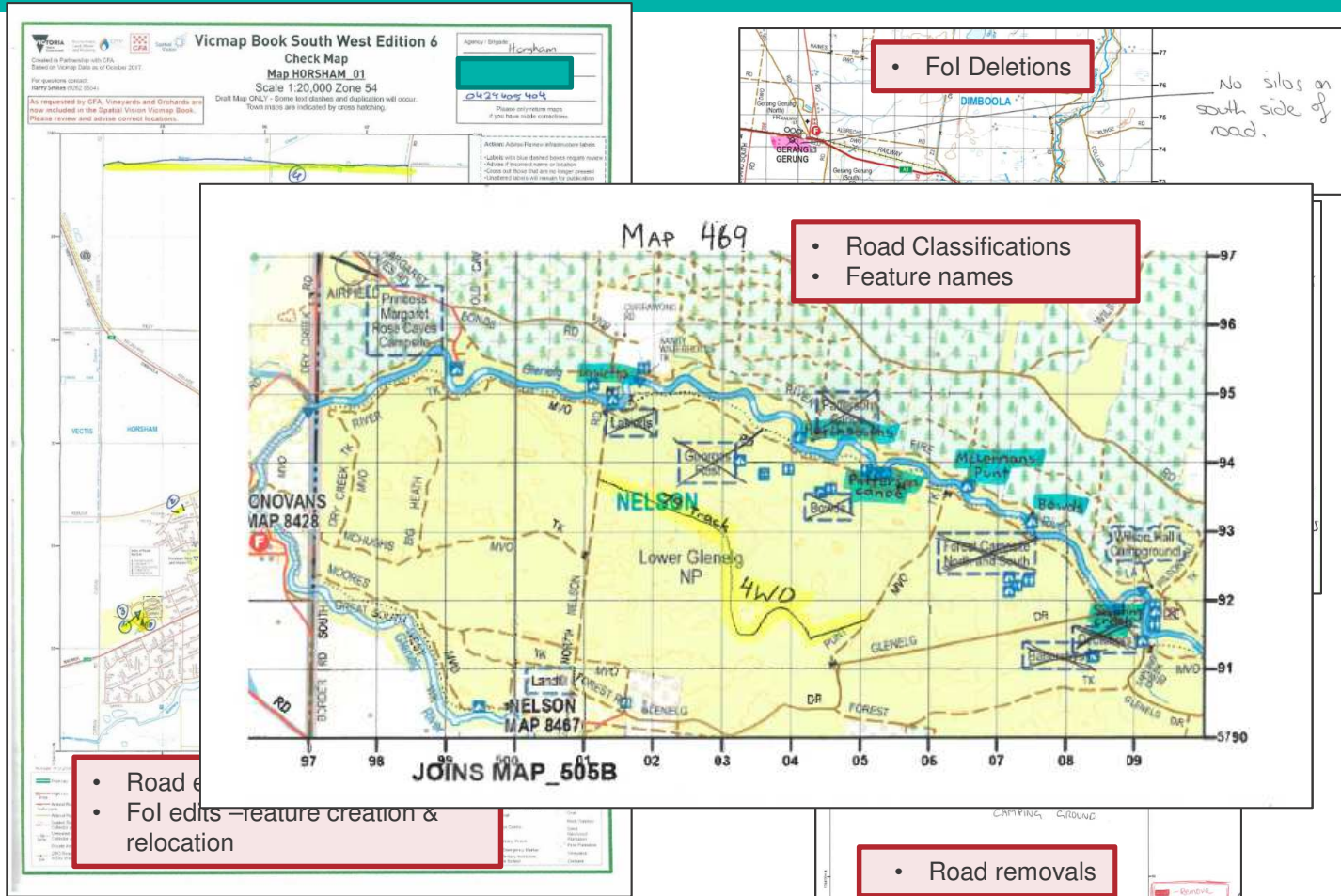
Vicmap Data Examples



CFA Brigade Check Maps SW ED6



Check Map Feedback





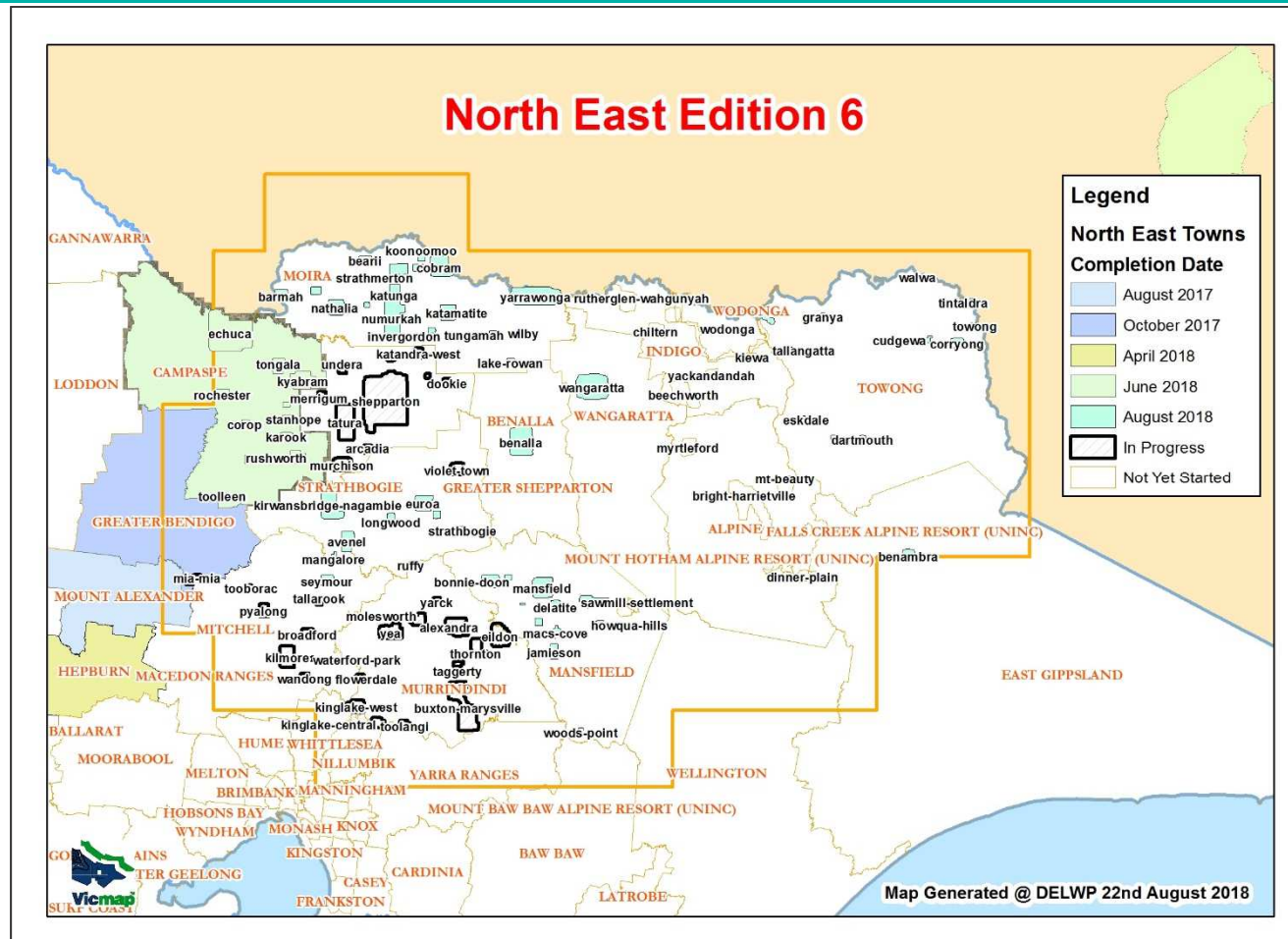
North East Edition 6 Map Book Verification Project

North East Map Book Extent:

Investigate the following imagery for topo edits:

- Campaspe LGA - New 2017 CIP imagery @20cm replaces previous 2006 imagery
- 107 townships covered by 2017 imagery including Wodonga LGA.
- CIP imagery to Vicmap data comparison, edit identification and edit processing needs to be **completed by 28/10/2018** for Spatial Vision availability.

North East Edition 6 Mapbook Verification Project



South West Edition 6 Map Book Verification Project

Progress stats for North East Map Book Extent:

Data Verification Project				2017/2018							
			LGA	Point	Line	Poly	General	Total	Imagery Used for LGA Trawl		
2018	Week 18	Apr-18	Campaspe LGA (Part 1)	719	167	240	738	1,864	campaspe_2017dec21_air_vis_20cm_mga55		
2018	Week 20	May-18	Campaspe LGA (Part 2)	1,588	348	405	1,194	3,535	campaspe_2017dec21_air_vis_20cm_mga55		
2018	Week 24	Jun-18	Moirra LGA Towns	885	327	251	4194	***** Create Retire -----			
2018	Week 26	Jun-18	Moirra LGA Towns	885	327	251	4194	Vicmap Ten: 2018 week 20 IN_BUILDING_AREA_POLYGON 195 31			
2018	Week 26	Jun-18	Towong LGA Towns, Benambra TP Imagery & Benalla TP Imagery	552	125	94	4186	Vicmap TEN: 2018 week 18 AD_LOCALITY_AREA_POLYGON 3 3 HY_WATER_POINT 256 141 IN_BUILDING_POINT 404 666 IN_LANDMARK_POINT 40 1 IN_UTILITY_POINT 5 2			
2018	Week 28	Jul-18	Mansfield LGA Towns & Wangaratta TP Imagery & Strathbogrie LGA Towns	952	128	144	TR_ROAD 721 663 TR_ROAD_INFRASTRUCTURE 408 394				
2018			Alpine LGA Towns				4186	Vicmap TEN: 2018 week 18 HY_WATERCOURSE 141 53 HY_WATER_AREA_POLYGON 168 26			
2018			Greater Shepparton LGA Towns				4194	Vicmap Ten: 2018 week 20 AD_LOCALITY_AREA_POLYGON 16 16 HY_WATER_POINT 672 165 IN_BUILDING_POINT 814 993 IN_LANDMARK_AREA_POLYGON 118 49 IN_UTILITY_AREA_POLYGON 16 1 IN_UTILITY_POINT 6 3 PL_PLACE_AREA_POLYGON 10 1 TR_ROAD 1173 1048 TR_ROAD_INFRASTRUCTURE 670 600			
2018			Wodonga LGA								
2018			Strathbogrie LGA Towns								
2018			Mitchell LGA Towns								
2018			Murrundindi LGA Towns								
2018			Indigo LGA Towns								
Totals				4,696	1,095	1,134	3,276	10,201	17/07/2018		
SV Supply Version 28/10/2018											

Transport

2972 Created

2705 Retired

South West Edition 6 Map Book Verification Project

Progress stats for North East Map Book Extent:

Data Verification Project				2017/2018							
			LGA	Point	Line	Poly	General	Total	Imagery Used for LGA Trawl		
2018	Week 18	Apr-18	Campaspe LGA (Part 1)	719	167	240	738	1,864	campaspe_2017dec21_air_vis_20cm_mga55		
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2018			Alpine LGA Towns	FOI – Building Points & Fol Polys				4186 : Vimap TEN: 2018 week 18 HY_WATERCOURSE 141 53 HY_WATER_AREA_POLYGON 168 26			
2018			Greater Shepparton LGA								
2018			Wodonga LGA	1413 Created				4194 : vicmap Ten: 2018 week 20 AD_LOCALITY_AREA_POLYGON 16 16 HY_WATER_POINT 672 165 IN_BUILDING_POINT 814 993 IN_LANDMARK_AREA_POLYGON 118 49 IN_UTILITY_AREA_POLYGON 10 1 IN_UTILITY_POINT 6 3 PL_PLACE_AREA_POLYGON 10 1 TR_ROAD 1173 1048 TR_ROAD_INFRASTRUCTURE 670 600			
2018			Strathbogrie LGA Towns								
2018			Mitchell LGA Towns	1690 Retired							
2018			Murrundindi LGA Towns								
2018			Indigo LGA Towns								
Totals				4,696	1,095	1,134	3,276	10,201	17/07/2018		
SV Supply Version 28/10/2018											

FOI – Building Points
& FoI Polys

1413 Created

1690 Retired

South West Edition 6 Map Book Verification Project

Progress stats for North East Map Book Extent:

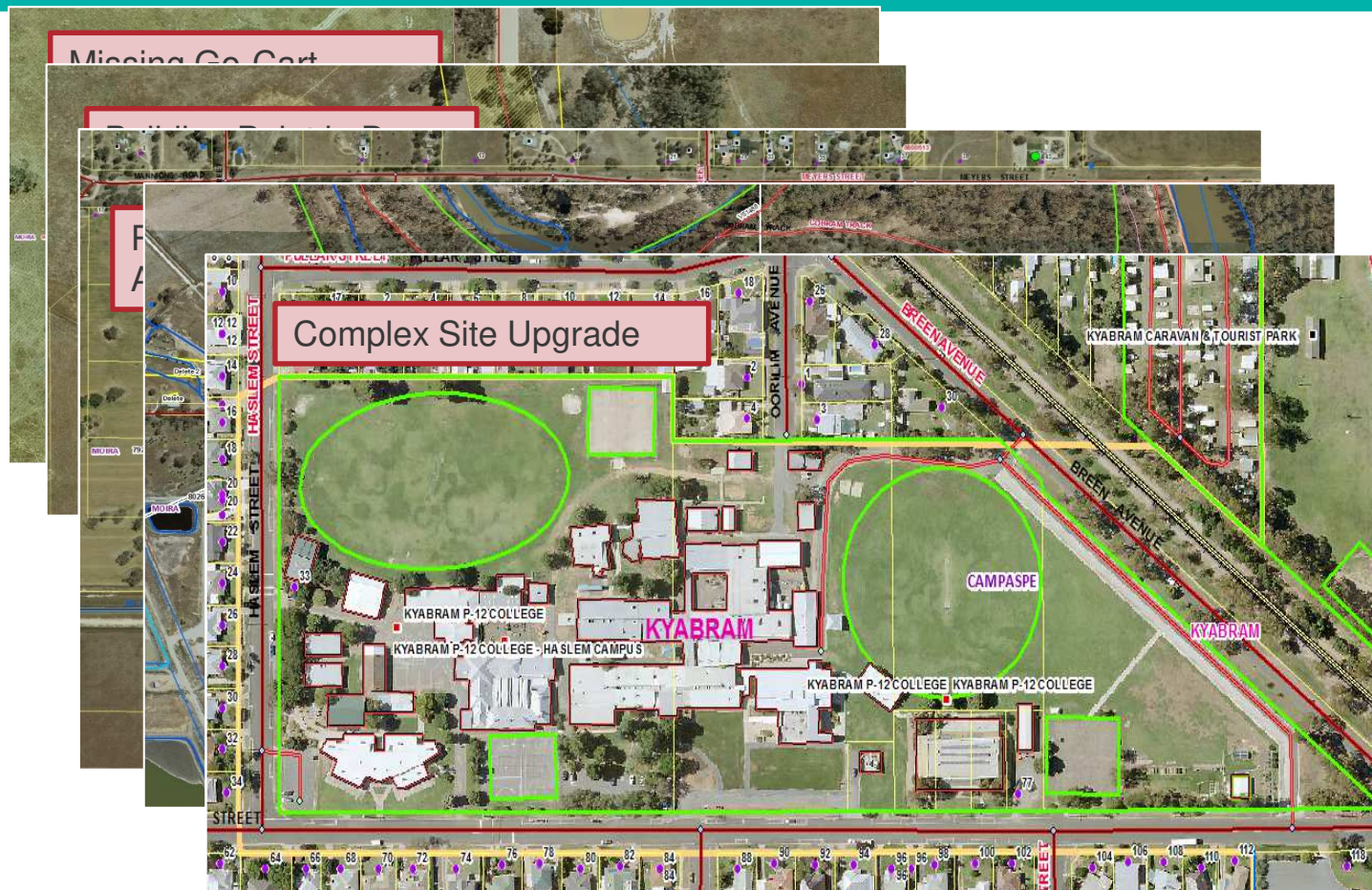
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2018			Alpine LGA Towns	Hydro features				4183	Vimap TEN: 2018 week 18 HY_WATERCOURSE 141 53 HY_WATER_AREA_POLYGON 168 26		
2018			Greater Shepparton LGA Towns	1237 Created				4194	Vicmap Ten: 2018 week 20 HY_WATER_POINT 672 165 IN_BUILDING_POINT 814 003 IN_LANDMARK_AREA_POLYGON 118 49 IN_UTILITY_AREA_POLYGON 16 1 IN_UTILITY_POINT 6 3 PL_PLACE_AREA_POLYGON 10 1 TR_ROAD 1173 1048 TR_ROAD_INFRASTRUCTURE 670 600		
2018			Wodonga LGA	385 Retired							
2018			Strathbogie LGA Towns								
2018			Mitchell LGA Towns								
2018			Murrundindi LGA Towns								
2018			Indigo LGA Towns								
Totals				4,696	1,095	1,134	3,276	10,201	17/07/2018		
SV Supply Version 28/10/2018											

Hydro features

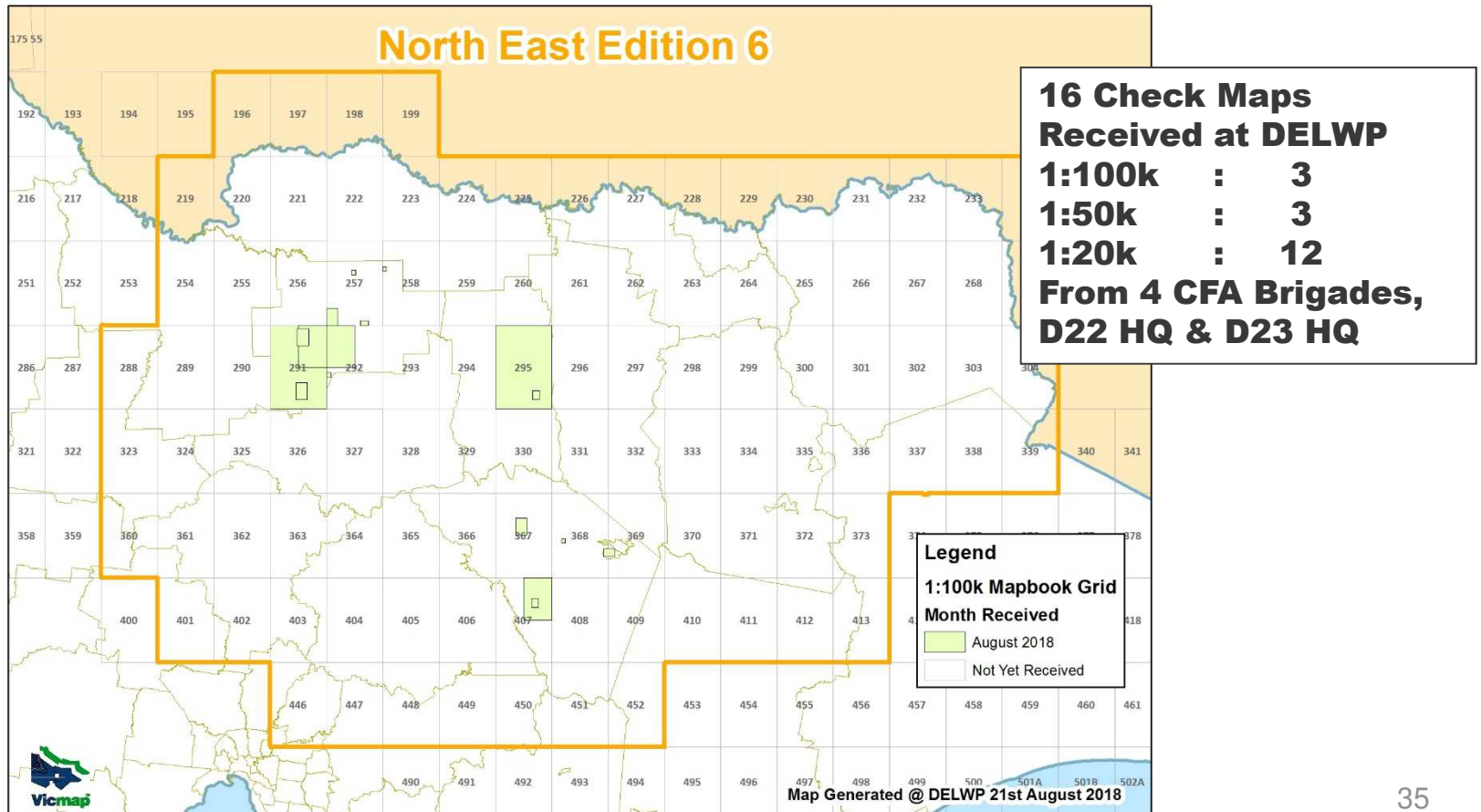
1237 Created

385 Retired

Some Examples

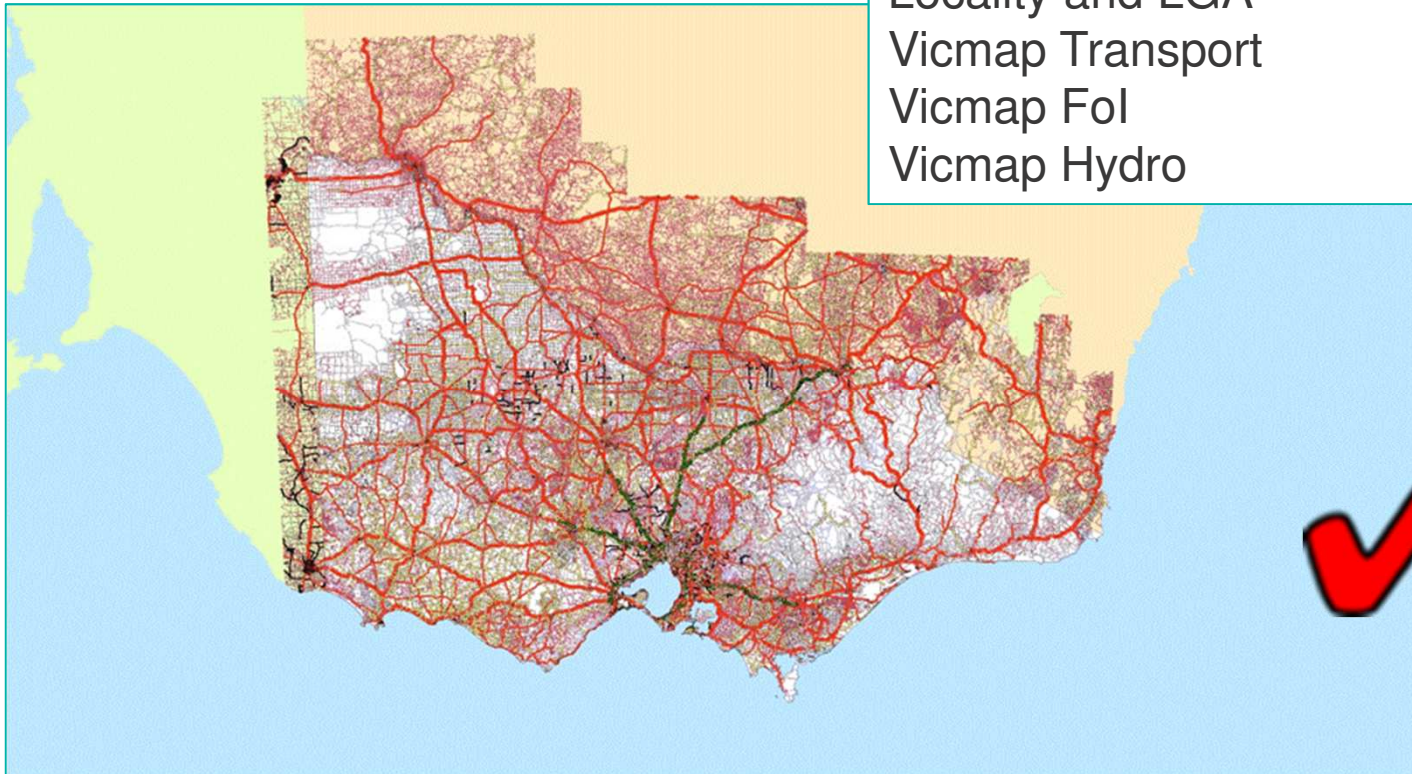


CFA Brigade Check Maps NE Ed6

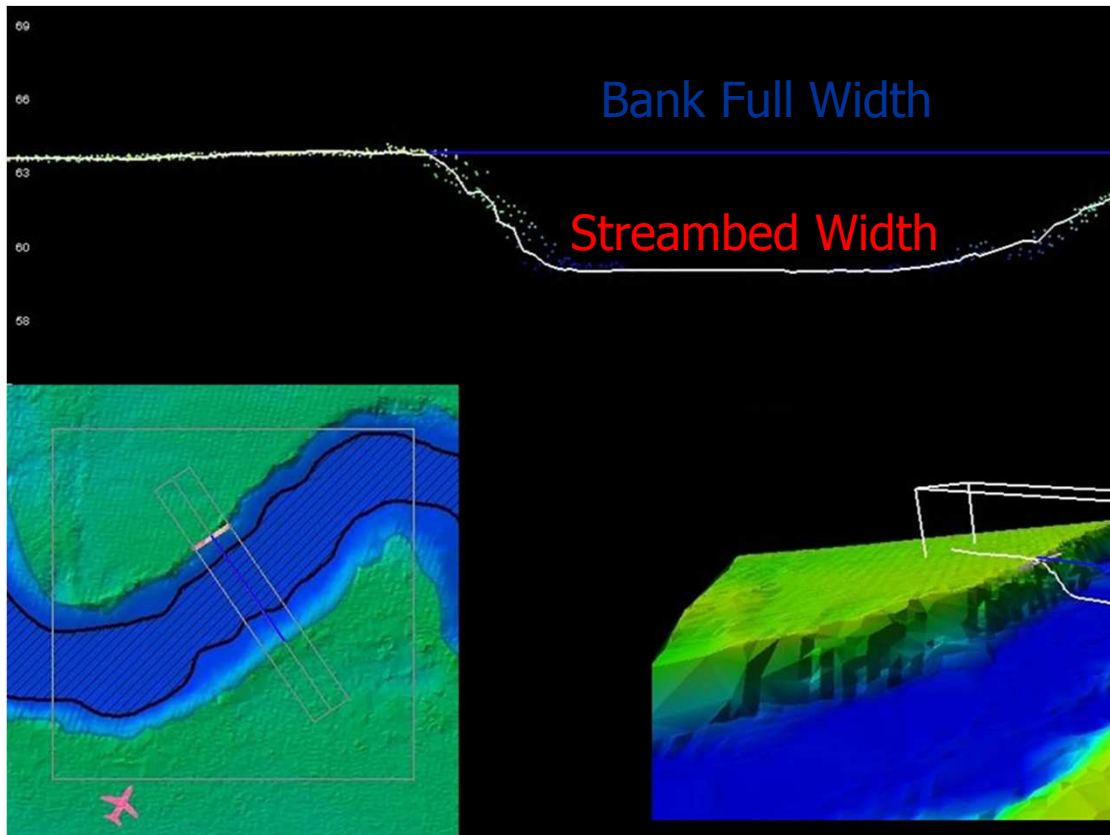


Cross Border Data Incorporation into VTT

VTT Admin: Topo Versions of
Locality and LGA
Vicmap Transport
Vicmap Fol
Vicmap Hydro

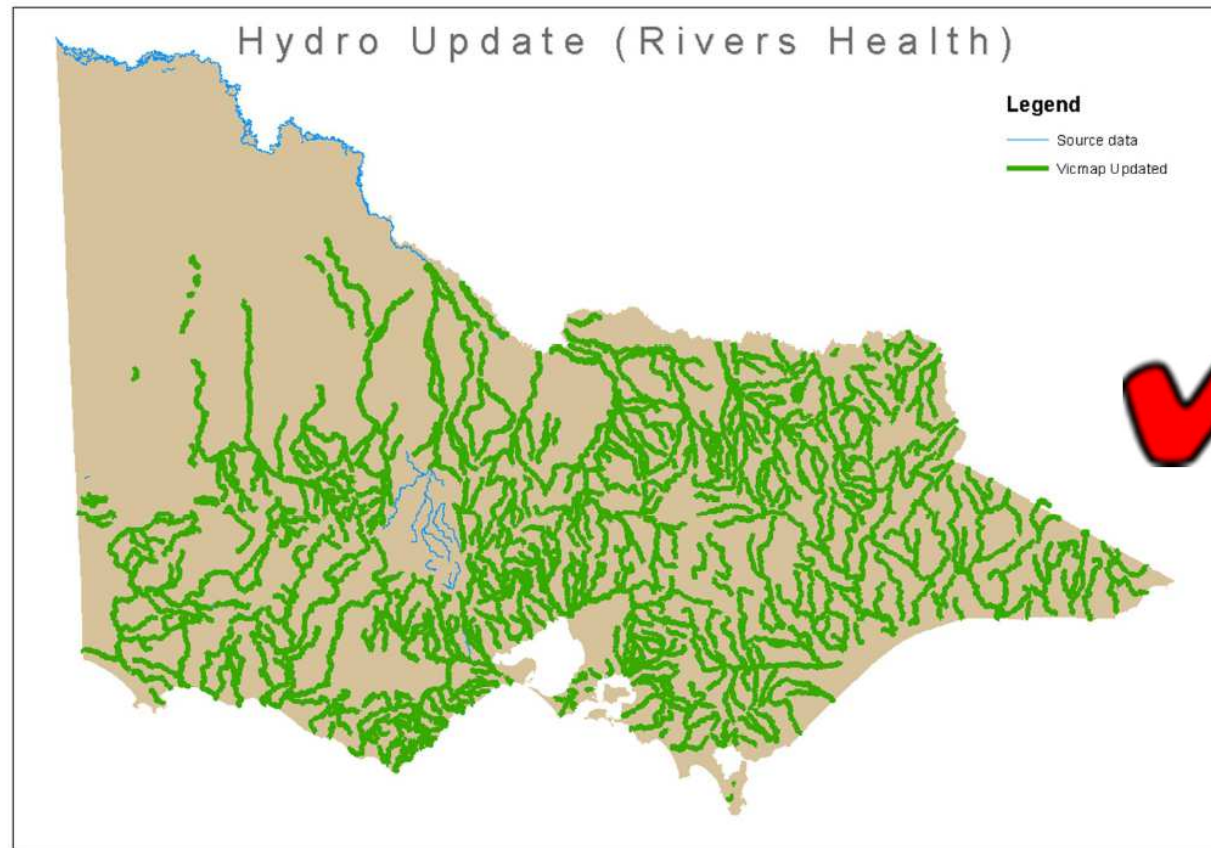


Rivers Health data incorporation into Vicmap Hydro

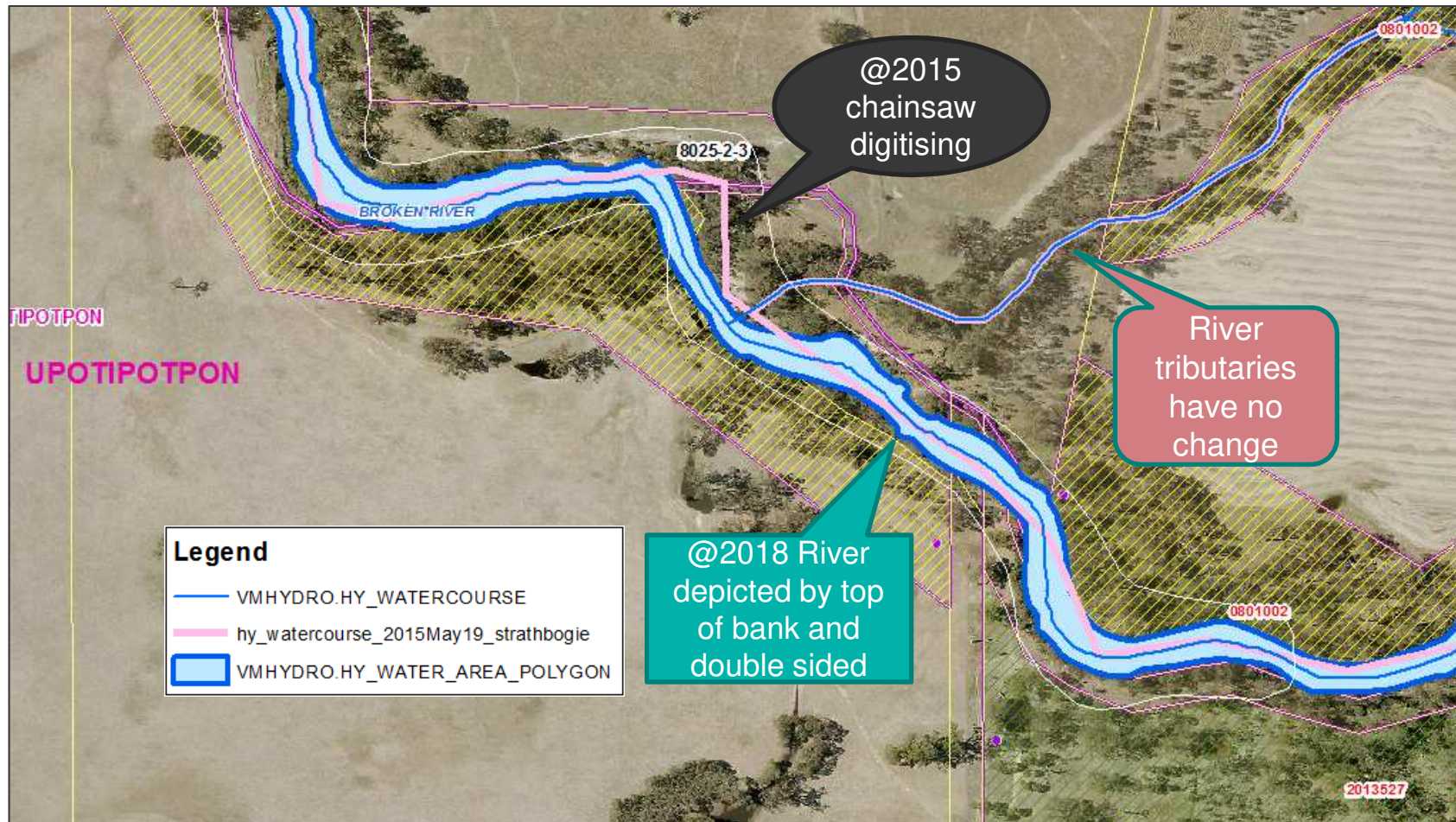


DELWP Rivers Health Project:
Lidar from 2009/10
Metrics generated
2010 – 2014
2015 Project to
improve Vicmap Hydro
watercourses

Rivers Health data incorporation into Vicmap Hydro

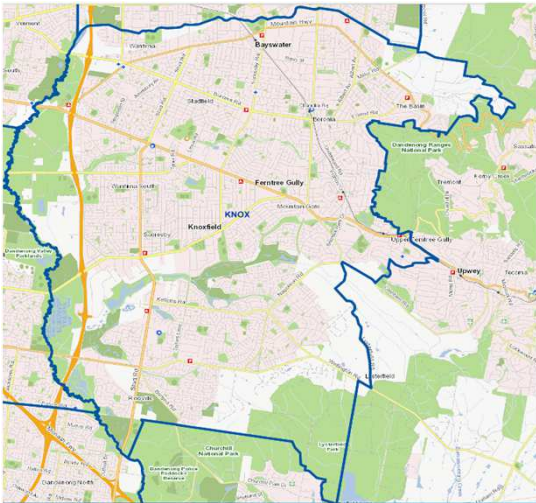


The Result



Next Steps



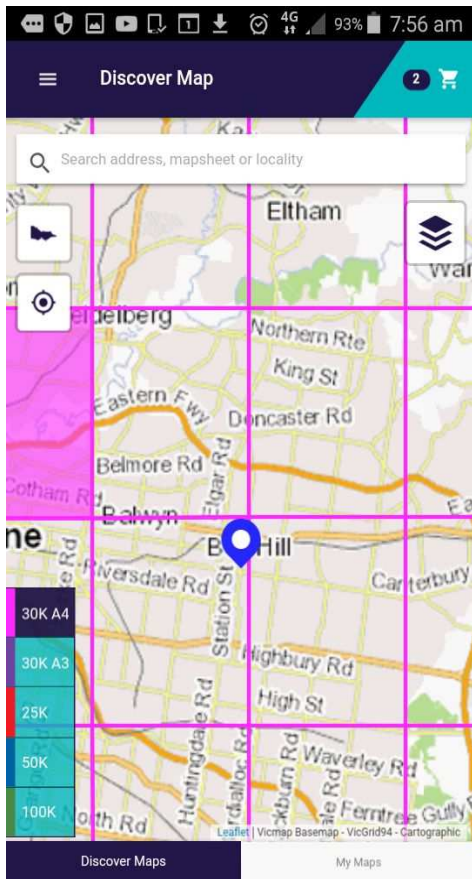


- **Digital Cadastral Modernisation (DCM)**

- Determining impacts DCM has on **all** Vicmap products & flow on effects to stakeholders
- Preparing for the integration of the data

- **Victorian Grants Commission Local Roads Pilot**

- Respond to this projects requirements of Vicmap Transport
 - Changing Transport model to incorporate these changes
 - Populate Road Maintenance Table



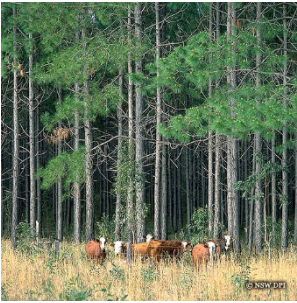
Vicmap Viewer (Vicmap Topographic Maps Application)

- Mobile application for discovering and purchasing Vicmap Topographic Maps
- Discover maps is colour coded with the scale identified
- A number of search options available
 - Location, Locality, Street name, Address, Map sheet name, Map sheet number
- Due for Release Late September / Early October



Data Improvements

- Data Verification VTT NE Ed 6 SV Mapbook extent completion
- Vicmap Vegetation Plantation 2018 Refresh
- Mountain Bike Trails population and data modelling



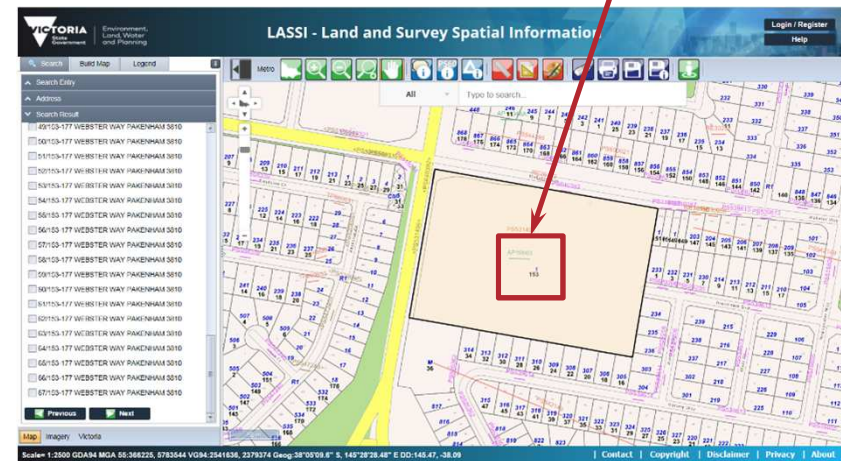
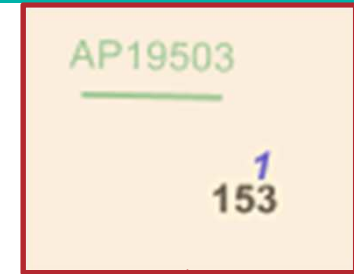


Data Developments

- Complex Site Representation & Maintenance



- Complex site plan has named internal road network and all sites addressed to these roads



- Vicmap has 67 addresses stacked at the centroid addressed as units to Webster Street

Vicmap Maintenance 2017 / 2018

- 2017/2018 record number of subdivision registrations
- Record number of NES Parcel submissions

Vicmap Improvement Projects

- 2017/18 PIQA
- Data Verification VTT SW Ed 6 SV Mapbook extent
- VMFol Six Monthly data update
- Cross Border VTT update
- Rivers Alignment Project (Rivers Health)

Vicmap Future Projects

- DCM preparation
- VGC Pilot project data accommodation
- Vicmap Viewer Launch
- Data Improvement Projects



Thankyou for listening.

