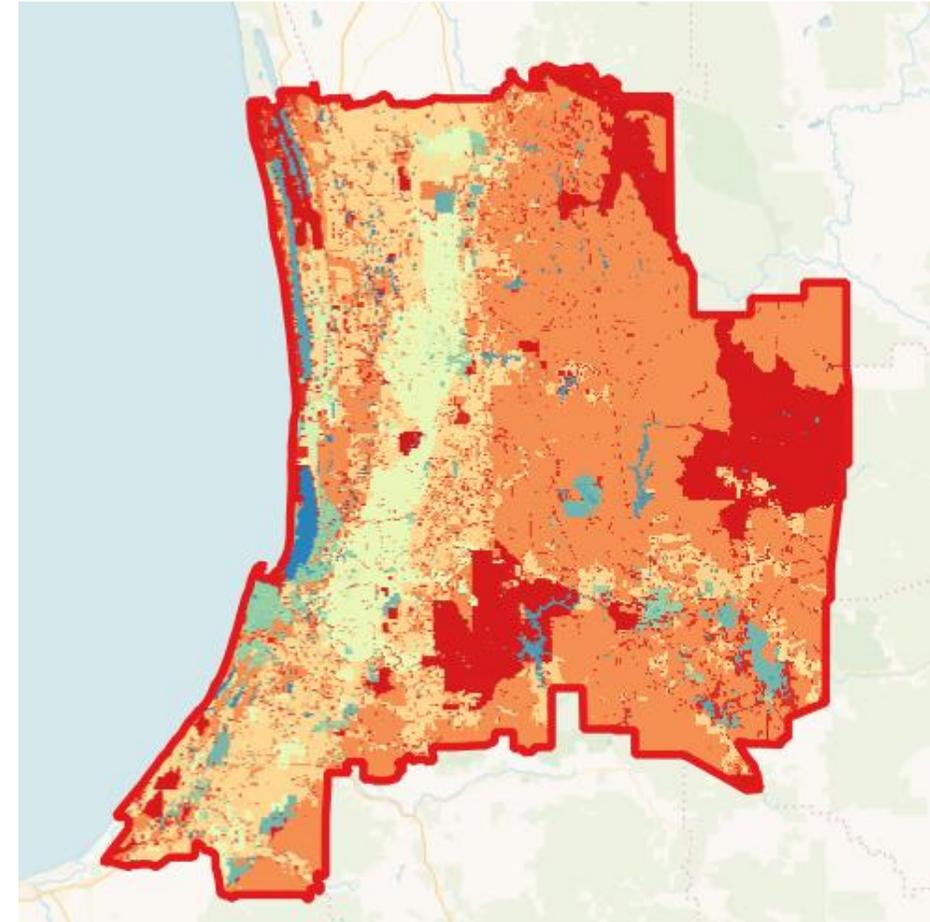
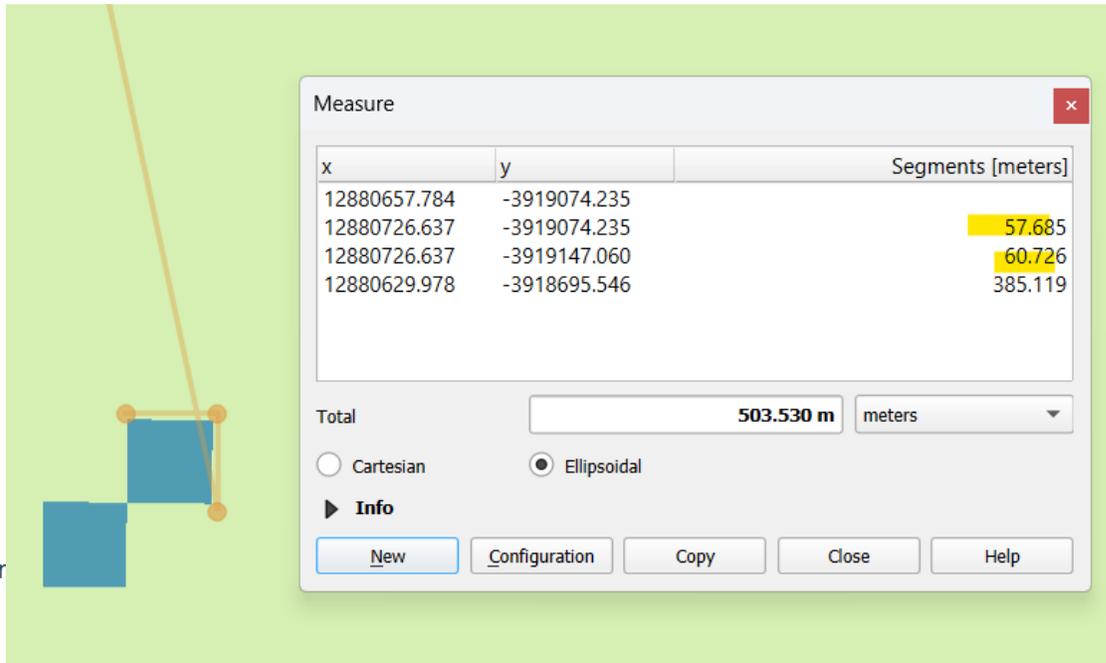


Scenario 3: Land Use and Human Activity

Edison Vargas

Bands

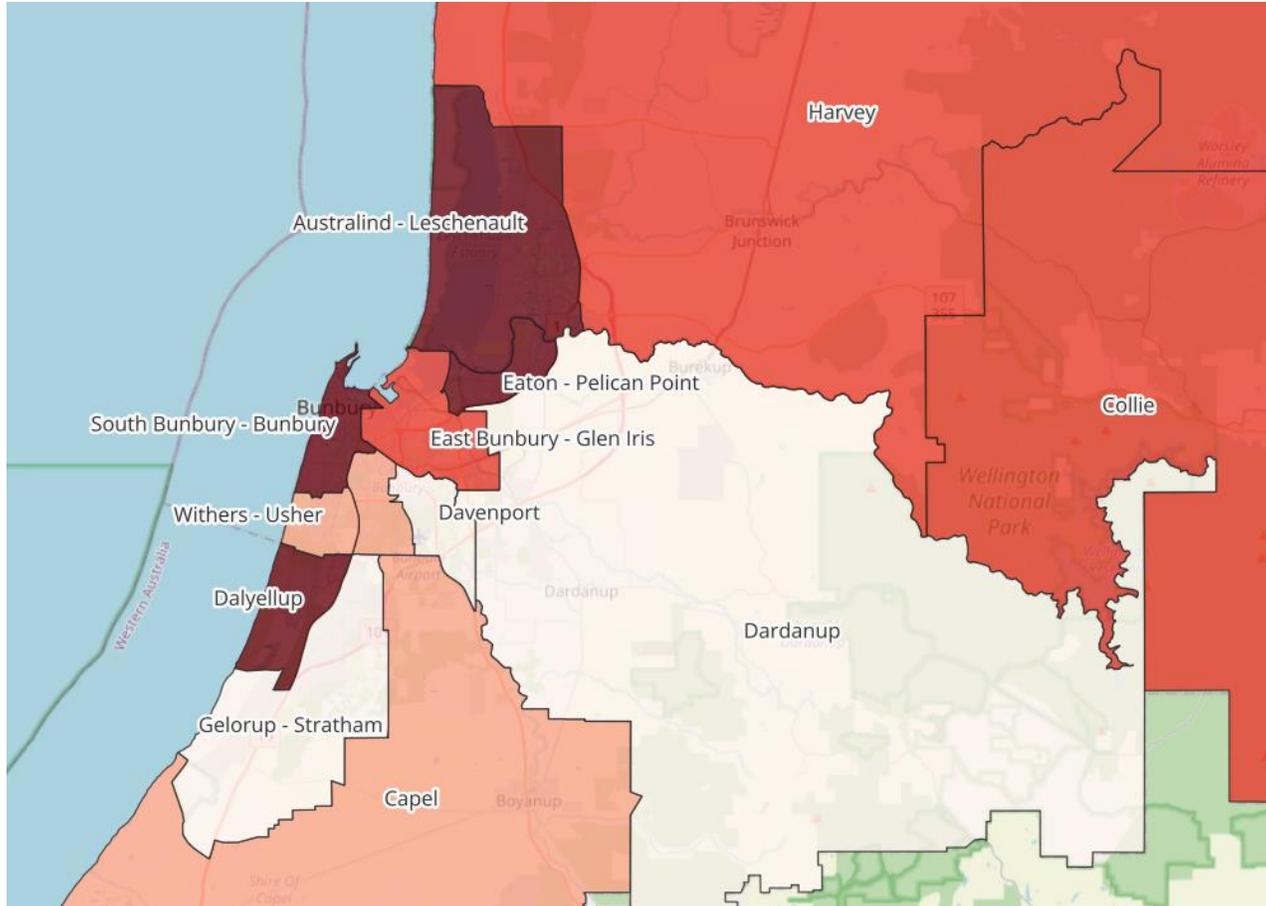
Bands are distinct layers of data within DEA's [STAC API](#).



Raster: Land Use Bunbury

Type	Units	Resolution	Nodata	Aliases	Description	
alum_class	int16	None	50 metres	0	None	Australian Land Use and Management (ALUM) Classification class

Population Graduated



Zonal Statistics Land Cover

Graduated

Value: 123 erp_2024

Symbol: [Green Box]

Legend format: %1 - %2 Precision: [Dropdown] Trim: [Checked]

Color ramp: [Red Gradient]

Classes Histogram

Symbol	Values	Legend
<input checked="" type="checkbox"/> [White Box]	11.00 - 4768.25	11 - 4768
<input checked="" type="checkbox"/> [Light Orange Box]	4768.25 - 7643.00	4768 - 7643
<input checked="" type="checkbox"/> [Red Box]	7643.00 - 10597.50	7643 - 10598
<input checked="" type="checkbox"/> [Dark Red Box]	10597.50 - 21238.00	10598 - 21238

Population Density (habitant / Km²)

Symbol	Values	Legend
<input checked="" type="checkbox"/> 	0.94 - 267.55	1 - 268
<input checked="" type="checkbox"/> 	267.55 - 534.15	268 - 534
<input checked="" type="checkbox"/> 	534.15 - 800.76	534 - 801
<input checked="" type="checkbox"/> 	800.76 - 1067.37	801 - 1067
<input checked="" type="checkbox"/> 	1067.37 - 1333.98	1067 - 1334

Bunbury_Pop_reprojected — Field Calculator

Only update 0 selected feature(s)

Create a new field

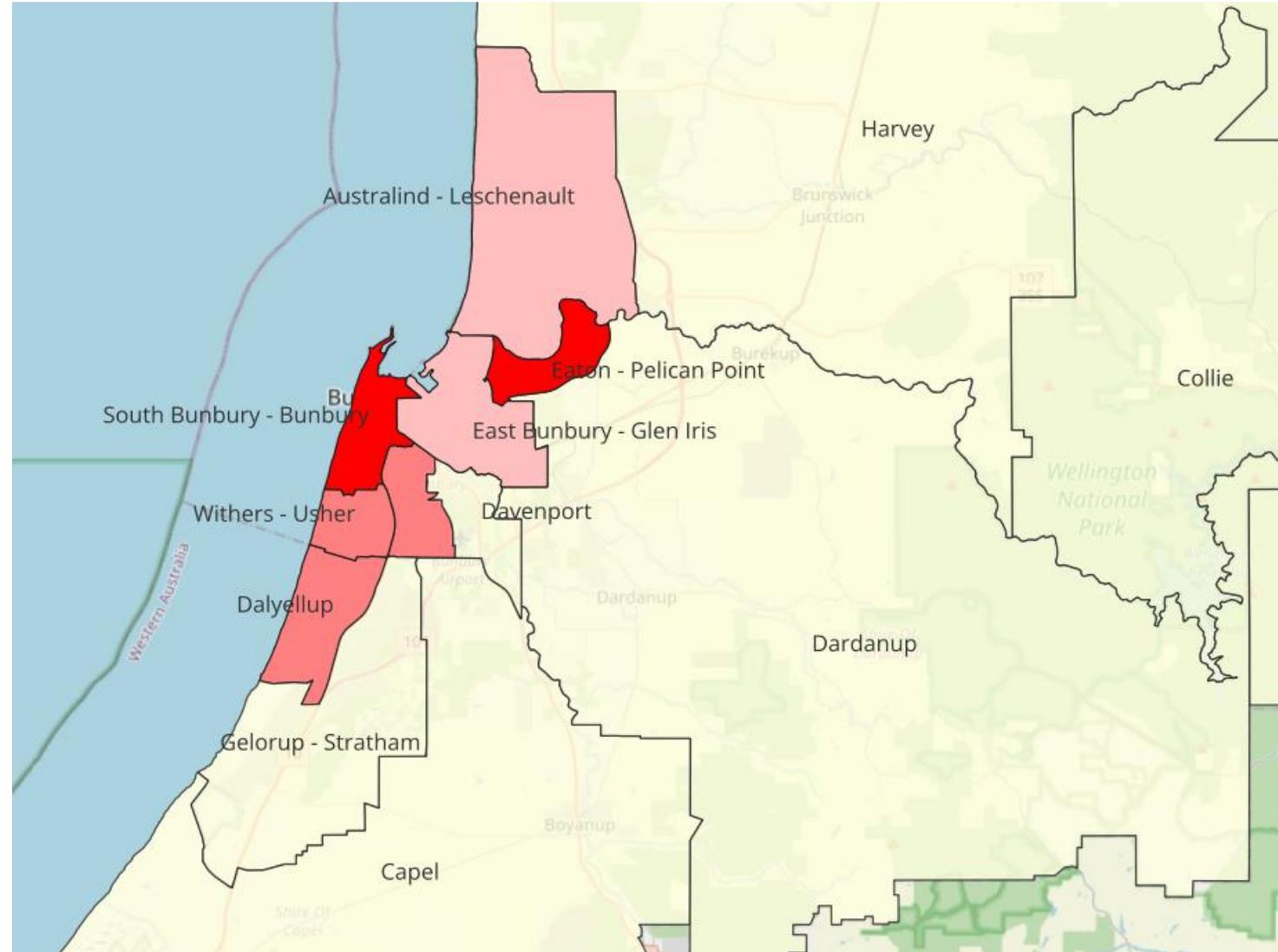
Create virtual field

Output field name:

Output field type: **1.2 Decimal number (real)**

Output field length: Precision:

Expression:



Zonal Statistics

Zonal Statistics Land Use

Categorized

Value: 1.2 _majority

Symbol: [Red bar]

Color ramp: [Green to Orange gradient]

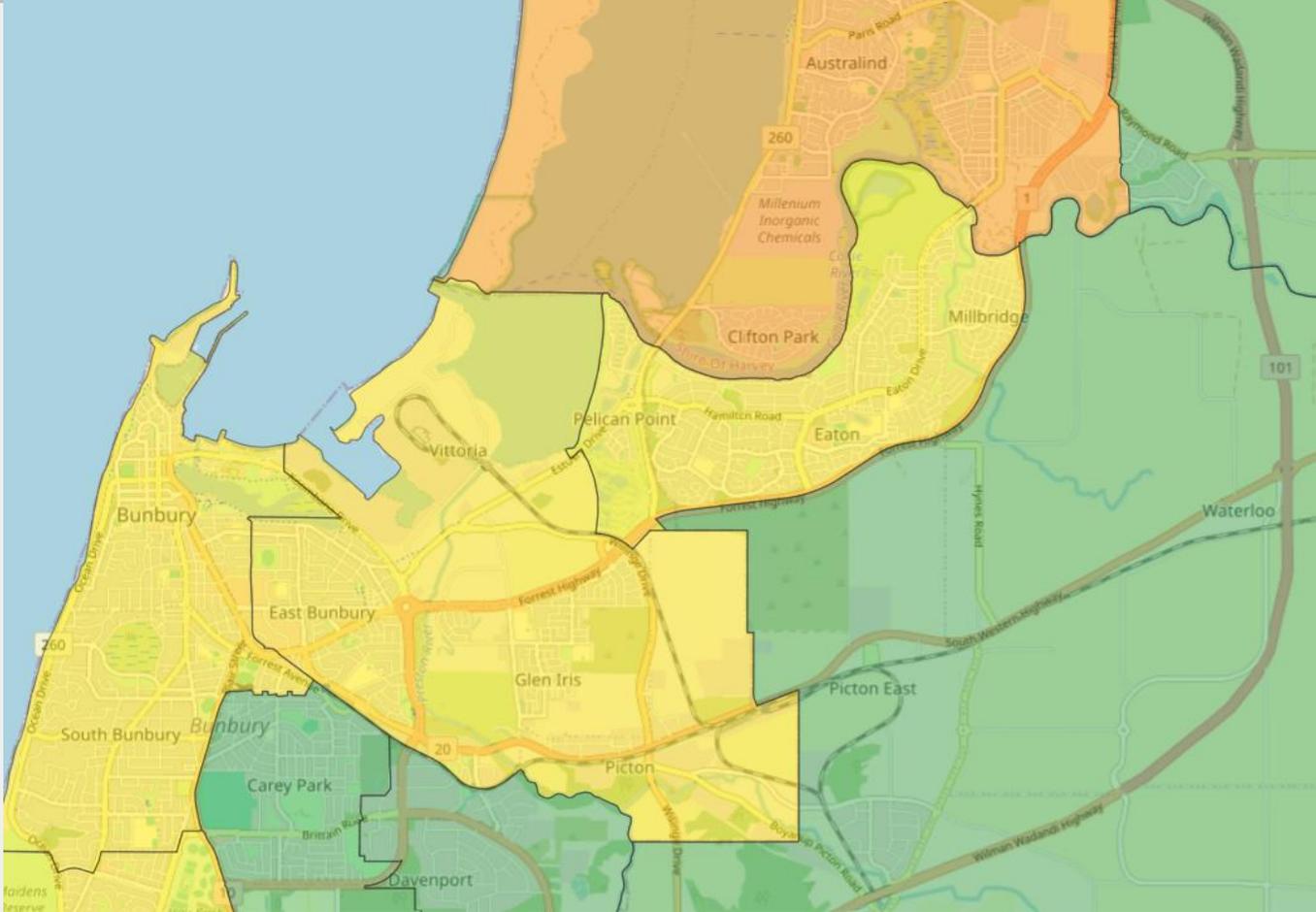
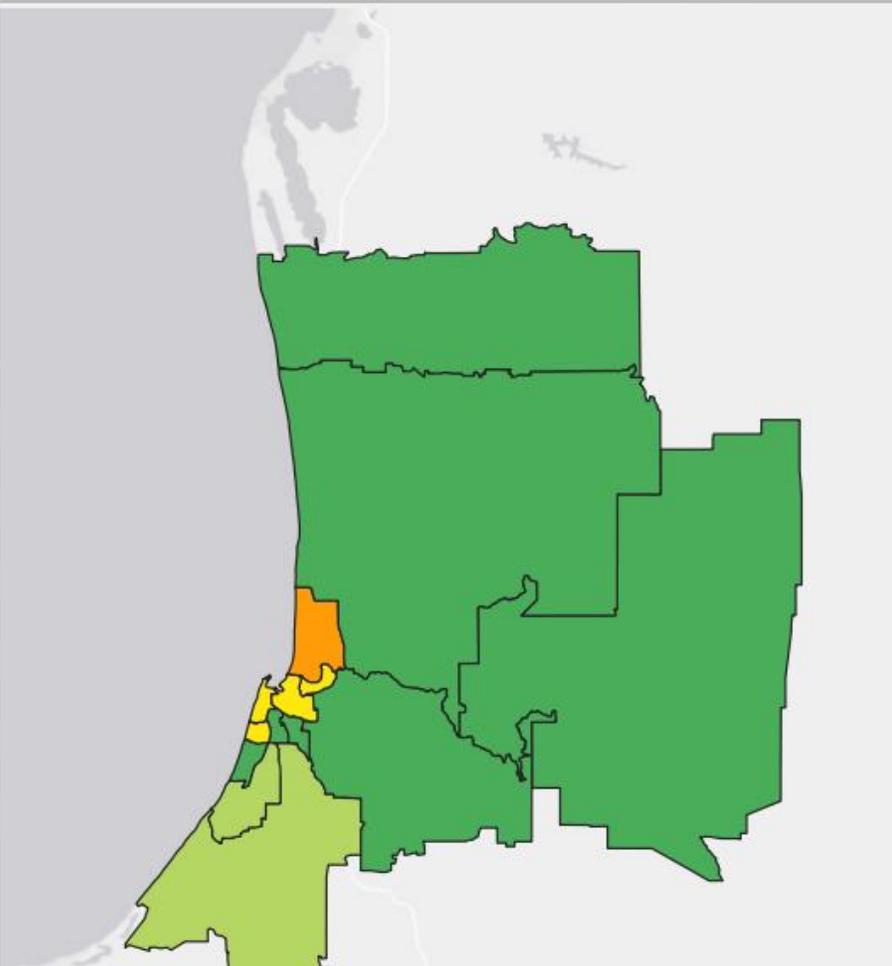
Symbol	Value	Legend
<input checked="" type="checkbox"/>	220	220
<input checked="" type="checkbox"/>	320	320
<input checked="" type="checkbox"/>	541	541
<input checked="" type="checkbox"/>	660	660

Land Use

Band 1: Band_1 (Gray)



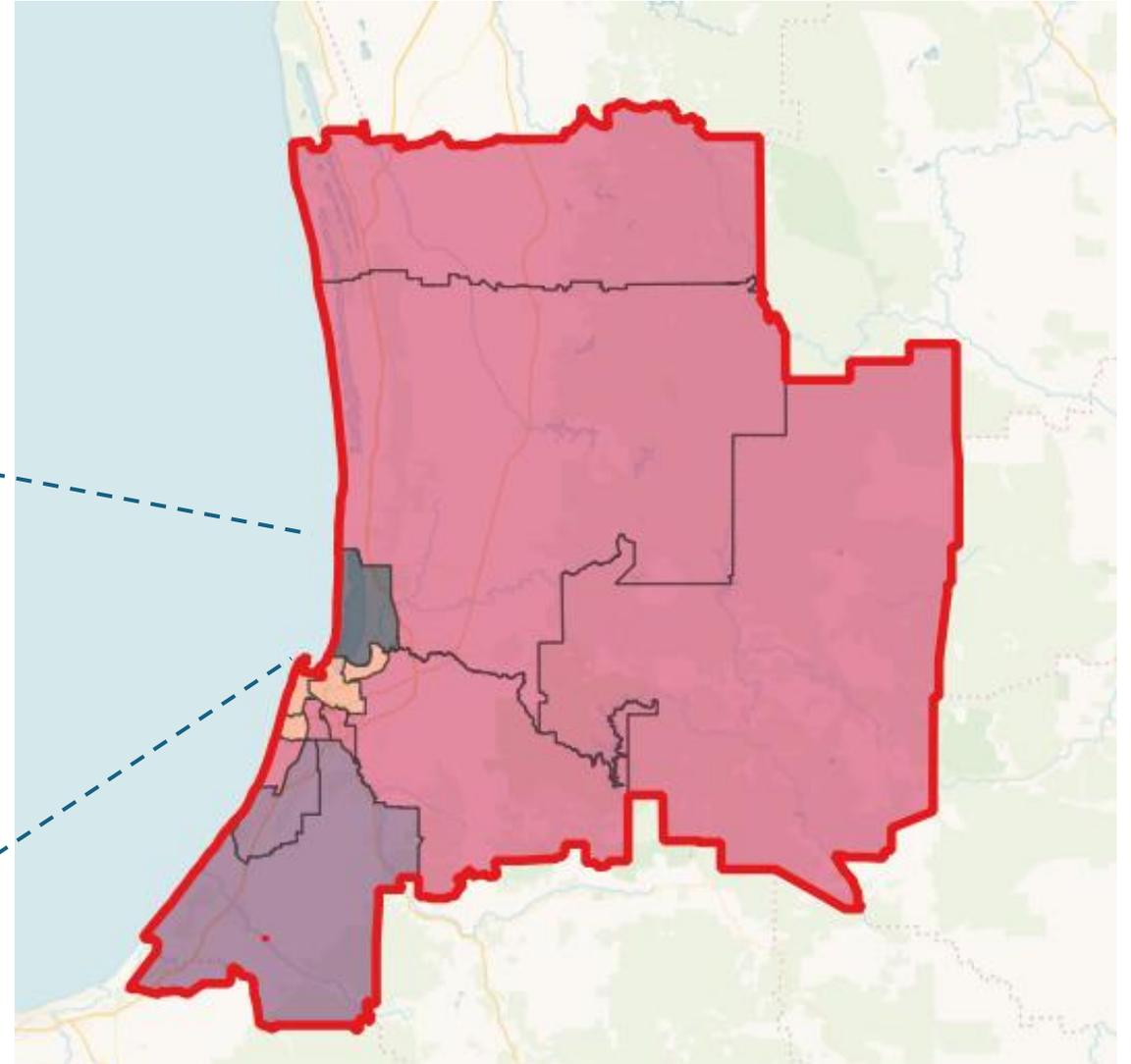
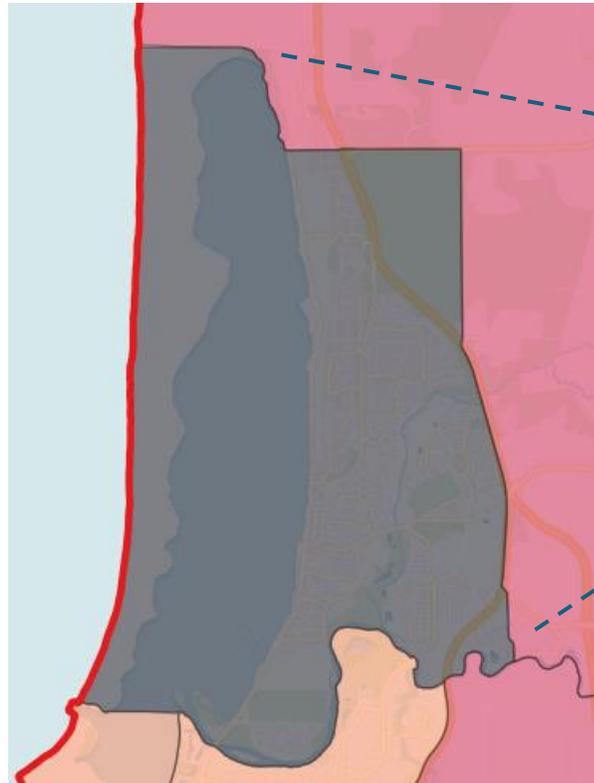
- Count
- Sum
- Mean
- Median
- St dev
- Minimum
- Maximum
- Range
- Minority
- Majority
- Variety
- Variance



Land Use Categorised

	Update All	Update Selected
_majority	LandUse	
0	541	Urban Residential
0	541	Urban Residential
1	541	Urban Residential
0	541	Urban Residential
0	220	Reserve
1	220	Reserve
0	320	Park
0	320	Park
0	660	Estuary

Symbol	Value
<input checked="" type="checkbox"/>	Estuary
<input checked="" type="checkbox"/>	Park
<input checked="" type="checkbox"/>	Reserve
<input checked="" type="checkbox"/>	Urban Residential



Queries

- How is land used in this area, and how does that relate to human activity?

The predominant land use is Reserve such as National Parks

There are 4 areas land use urban residential.

Bunbury Towns	Land Use (Km2)				Total
	Esturary	Park	Reserve	Urban Residential	
Australind - Leschenault	67				67
Capel		507			507
College Grove - Carey Park			10		10
Collie			1710		1710
Dalyellup			16		16
Dardanup			517		517
Davenport			12		12
East Bunbury - Glen Iris				23	23
Eaton - Pelican Point				10	10
Gelorup - Stratham		65			65
Harvey			1661		1661
South Bunbury - Bunbury				11	11
Waroona			832		832
Withers - Usher				8	8
Total	67	572	4758	52	5450
Percentage	1.2%	10.5%	87.3%	1.0%	100.0%

Bunbury Towns	Population Count per Land Use (habitants)				Total
	Esturary	Park	Reserve	Urban Residential	
Australind - Leschenault	21,238				21,238
Capel		5,909			5,909
College Grove - Carey Park			7,475		7,475
Collie			9,408		9,408
Dalyellup			10,711		10,711
Dardanup			3,630		3,630
Davenport			11		11
East Bunbury - Glen Iris				7,811	7,811
Eaton - Pelican Point				13,276	13,276
Gelorup - Stratham		3,203			3,203
Harvey			10,257		10,257
South Bunbury - Bunbury				13,439	13,439
Waroona			4,537		4,537
Withers - Usher				5,462	5,462
Total	21,238	9,112	46,029	39,988	116,367
Percentage	18.3%	7.8%	39.6%	34.4%	100.0%

Optimization with Cadastre and Land Use

Symbol	Value	Legend
<input checked="" type="checkbox"/>	530	530
<input checked="" type="checkbox"/>	531	531
<input checked="" type="checkbox"/>	535	535
<input checked="" type="checkbox"/>	537	537
<input checked="" type="checkbox"/>	538	538
<input checked="" type="checkbox"/>	540	540
<input checked="" type="checkbox"/>	541	541
<input checked="" type="checkbox"/>	542	542
<input checked="" type="checkbox"/>	543	543
<input checked="" type="checkbox"/>	550	550
<input checked="" type="checkbox"/>	551	551
<input checked="" type="checkbox"/>	552	552
<input checked="" type="checkbox"/>	553	553
<input checked="" type="checkbox"/>	561	561
<input checked="" type="checkbox"/>	565	565
<input checked="" type="checkbox"/>	567	567
<input checked="" type="checkbox"/>	570	570
<input checked="" type="checkbox"/>	572	572

