

Statewide wetland geospatial inventory update

Factsheet 9: Wetland numbering system

Purpose

This Factsheet describes the approach used to assign numbers to wetlands in the updated statewide wetland geospatial inventory. The wetland numbering task assigned a five digit integer to identify each wetland in the statewide geospatial inventory. It would be highly desirable for any future wetland mapping to allocate numbers consistent with this approach.

Deciding when to group or split wetland numbers

The key question underlying the wetland numbering approach was how to decide when a set of polygons representing mapped wetlands would be assigned the same wetland number, and when these polygons would be assigned different wetland numbers.

The approach developed for this project was based largely on the methodology used to assign wetland numbers for the Wetland 1994 and Wetland 1788 mapping. The Wetland 1994 and Wetland 1788 mapping followed four general rules:

1. wetlands polygons that were spatially connected¹ in Wetland 1994 and shared a common Corrick category (but not Corrick sub-category) were assigned the same wetland number
2. wetland polygons that were spatially connected in Wetland 1994 but had different Corrick categories were assigned different wetland numbers
3. wetland polygons that were not spatially connected in Wetland 1994 were assigned different wetland numbers
4. wetland polygons that occurred in Wetland 1788 but not Wetland 1994 were assigned new wetland numbers.

The wetland numbers assigned to existing mapped features in the Wetland 1994 and Wetland 1788 mapping were translated into a new five digit wetland number, with a direct link between the wetland numbers used in the updated inventory and the numbers used in the previous mapping.

Features that were not sourced from the original Wetland 1994 and Wetland 1788 mapping were generally assigned wetland numbers in accordance with the four general rules outlined above.

However, there were exceptions to this rule. For example, in some locations the CMA wetland managers provided directions to manually assign a group of (unconnected) wetland polygons to have the same wetland number, as the manager considered that these polygons belong to the same functional unit or wetland complex.

Another exception that was frequently encountered was assigning wetland numbers to newly mapped polygons that were spatially connected to two or more pre-existing wetland features. In this instance, the newly mapped polygon was generally assigned the wetland number of the largest spatially connected pre-existing polygon. While this approach generally worked well, it proved problematic in instances when many pre-existing wetland polygons with different numbers were 'joined' into one spatially connected feature as a result of the new mapping – in instances like this the spatially connected features are comprised of multiple wetland numbers.

Assigning numbers based on location

The first step involved determining which polygons should share common wetland numbers, and which polygons should have their own wetland numbers (refer discussion above). Once this was completed, the wetland numbers themselves were assigned using a location-based numbering approach, so that wetlands in a similar area are assigned similar wetland numbers.

The location-based numbering approach used a two-level hierarchy:

¹ Spatially connected is defined as polygons that share one or more line segments

- Level one: Wetland numbers are grouped according to the Catchment Management Authority (CMA) region that the wetland falls within
- Level two: Wetland numbers are grouped according to the VicMap Topographic 1:100,000 map index (<http://www.giconnections.vic.gov.au/content/vicgdd/record/ANZVI0803004006.htm>)

For level one, each wetland was assigned to a single CMA², and the appropriate wetland number range identified from Table 1. The wetland number range for each CMA was designed such that:

- wetland numbers increase from the west to the east of Victoria
- CMAs with the greatest number of mapped wetlands have the largest number range
- each CMA has an allotment of 'spare' numbers that can be assigned in any future mapping

Table 1. Wetland number range for each CMA

Catchment Management Authority	Lower bound	Upper bound	Number of options
Mallee	10,000	14,999	4,999
Wimmera	15,000	19,999	4,999
Glenelg Hopkins	20,000	39,999	19,999
North Central	40,000	49,999	9,999
Corangamite	50,000	59,999	9,999
Goulburn Broken	60,000	69,999	9,999
Port Phillip And Westernport	70,000	74,999	4,999
North East	75,000	79,999	4,999
West Gippsland	80,000	94,999	14,999
East Gippsland	95,000	99,999	4,999

For level two, each wetland was assigned to a single 1:100,000 mapsheet³, and the appropriate wetland number range identified from the table in Attachment A. The wetland numbering ensured that:

- wetland numbers increase from the north-west to the south-east of each CMA, with similar numbers clustered together
- mapsheets with the greatest number of mapped wetlands have the largest number range i.e. the number of options for each mapsheet varies based on the density of wetlands within the mapsheet
- each mapsheet has an allotment of 'spare' numbers that can be assigned in any future mapping

Acknowledgement

This work was prepared for the Department of Environment and Primary Industries by Mark Stacey and other staff at Alluvium Consulting Pty Ltd, Richmond, Victoria.

² In instances where the wetland overlapped the boundary of one or more CMAs the wetland was assigned to the single CMA that covered the greatest area of the wetland

³ In instances where the wetland overlapped the boundary of one or more mapsheets the wetland was assigned to the single mapsheet that covered the greatest area of the wetland

Attachment A: Stratified numbering using 1:100,00 mapsheets

Catchment Management Authority - Mapsheet	Number of options	Lower bound	Upper bound
Corangamite - 7420	100	50,000	50,099
Corangamite - 7421	100	50,100	50,199
Corangamite - 7520	200	50,200	50,399
Corangamite - 7521	1,000	50,400	51,399
Corangamite - 7522	500	51,400	51,899
Corangamite - 7620	100	51,900	51,999
Corangamite - 7621	2,000	52,000	53,999
Corangamite - 7622	500	54,000	54,499
Corangamite - 7721	1,000	54,500	55,499
Corangamite - 7722	500	55,500	55,999
Corangamite - 7723	100	56,000	56,099
Corangamite - 7821	500	56,100	56,599
East Gippsland - 8222	50	95,000	95,049
East Gippsland - 8223	250	95,050	95,299
East Gippsland - 8321	50	95,300	95,349
East Gippsland - 8322	250	95,350	95,599
East Gippsland - 8323	250	95,600	95,849
East Gippsland - 8324	50	95,850	95,899
East Gippsland - 8421	50	95,900	95,949
East Gippsland - 8422	250	95,950	96,199
East Gippsland - 8423	250	96,200	96,449
East Gippsland - 8424	50	96,450	96,499
East Gippsland - 8522	250	96,500	96,749
East Gippsland - 8523	250	96,750	96,999
East Gippsland - 8524	500	97,000	97,499
East Gippsland - 8622	250	97,500	97,749
East Gippsland - 8623	50	97,750	97,799
East Gippsland - 8722	250	97,800	98,049
East Gippsland - 8723	50	98,050	98,099
East Gippsland - 8822	250	98,100	98,349
East Gippsland - 8823	50	98,350	98,399
Glenelg Hopkins - 7021	100	20,000	20,099
Glenelg Hopkins - 7022	200	20,100	20,299
Glenelg Hopkins - 7023	200	20,300	20,499
Glenelg Hopkins - 7121	400	20,500	20,899
Glenelg Hopkins - 7122	2,000	20,900	22,899
Glenelg Hopkins - 7123	500	22,900	23,399
Glenelg Hopkins - 7221	800	23,400	24,199
Glenelg Hopkins - 7222	1,000	24,200	25,199
Glenelg Hopkins - 7223	400	25,200	25,599
Glenelg Hopkins - 7321	1,000	25,600	26,599
Glenelg Hopkins - 7322	1,000	26,600	27,599
Glenelg Hopkins - 7323	400	27,600	27,999
Glenelg Hopkins - 7420	200	28,000	28,199

Catchment Management Authority - Mapsheet	Number of options	Lower bound	Upper bound
Glenelg Hopkins - 7421	600	28,200	28,799
Glenelg Hopkins - 7422	3,000	28,800	31,799
Glenelg Hopkins - 7423	400	31,800	32,199
Glenelg Hopkins - 7521	200	32,200	32,399
Glenelg Hopkins - 7522	3,000	32,400	35,399
Glenelg Hopkins - 7523	1,000	35,400	36,399
Glenelg Hopkins - 7622	600	36,400	36,999
Glenelg Hopkins - 7623	600	37,000	37,599
Goulburn Broken - 7823	100	60,000	60,099
Goulburn Broken - 7824	100	60,100	60,199
Goulburn Broken - 7825	500	60,200	60,699
Goulburn Broken - 7826	100	60,700	60,799
Goulburn Broken - 7922	100	60,800	60,899
Goulburn Broken - 7923	1,000	60,900	61,899
Goulburn Broken - 7924	1,000	61,900	62,899
Goulburn Broken - 7925	1,000	62,900	63,899
Goulburn Broken - 7926	500	63,900	64,399
Goulburn Broken - 8023	1,000	64,400	65,399
Goulburn Broken - 8024	1,500	65,400	66,899
Goulburn Broken - 8025	500	66,900	67,399
Goulburn Broken - 8026	200	67,400	67,599
Goulburn Broken - 8122	100	67,600	67,699
Goulburn Broken - 8123	100	67,700	67,799
Goulburn Broken - 8124	100	67,800	67,899
Goulburn Broken - 8125	100	67,900	67,999
Goulburn Broken - 8126	100	68,000	68,099
Goulburn Broken - 8223	100	68,100	68,199
Mallee - 7029	50	10,000	10,049
Mallee - 7030	50	10,050	10,099
Mallee - 7127	50	10,100	10,149
Mallee - 7129	250	10,150	10,399
Mallee - 7226	50	10,400	10,449
Mallee - 7227	50	10,450	10,499
Mallee - 7228	50	10,500	10,549
Mallee - 7229	250	10,550	10,799
Mallee - 7326	250	10,800	11,049
Mallee - 7327	50	11,050	11,099
Mallee - 7328	250	11,100	11,349
Mallee - 7329	250	11,350	11,599
Mallee - 7425	50	11,600	11,649
Mallee - 7426	250	11,650	11,899
Mallee - 7427	250	11,900	12,149
Mallee - 7428	250	12,150	12,399
Mallee - 7525	50	12,400	12,449
Mallee - 7526	50	12,450	12,499

Catchment Management Authority - Mapsheet	Number of options	Lower bound	Upper bound
Mallee - 7527	250	12,500	12,749
Mallee - 7528	250	12,750	12,999
North Central - 7424	500	40,000	40,499
North Central - 7425	200	40,500	40,699
North Central - 7523	100	40,700	40,799
North Central - 7524	100	40,800	40,899
North Central - 7525	500	40,900	41,399
North Central - 7526	100	41,400	41,499
North Central - 7527	100	41,500	41,599
North Central - 7623	500	41,600	42,099
North Central - 7624	500	42,100	42,599
North Central - 7625	500	42,600	43,099
North Central - 7626	500	43,100	43,599
North Central - 7627	100	43,600	43,699
North Central - 7723	500	43,700	44,199
North Central - 7724	500	44,200	44,699
North Central - 7725	500	44,700	45,199
North Central - 7726	500	45,200	45,699
North Central - 7823	100	45,700	45,799
North Central - 7824	200	45,800	45,999
North Central - 7825	500	46,000	46,499
North Central - 7826	100	46,500	46,599
North East - 8124	150	75,000	75,149
North East - 8125	625	75,150	75,774
North East - 8126	50	75,775	75,824
North East - 8223	50	75,825	75,874
North East - 8224	250	75,875	76,124
North East - 8225	250	76,125	76,374
North East - 8226	50	76,375	76,424
North East - 8323	250	76,425	76,674
North East - 8324	1,000	76,675	77,674
North East - 8325	375	77,675	78,049
North East - 8326	50	78,050	78,099
North East - 8423	50	78,100	78,149
North East - 8424	125	78,150	78,274
North East - 8425	250	78,275	78,524
North East - 8426	100	78,525	78,624
North East - 8524	375	78,625	78,999
North East - 8525	100	79,000	79,099
Port Phillip And Westernport - 7721	50	70,000	70,049
Port Phillip And Westernport - 7722	150	70,050	70,199
Port Phillip And Westernport - 7723	50	70,200	70,249
Port Phillip And Westernport - 7821	150	70,250	70,399
Port Phillip And Westernport - 7822	300	70,400	70,699
Port Phillip And Westernport - 7823	100	70,700	70,799

Catchment Management Authority - Mapsheet	Number of options	Lower bound	Upper bound
Port Phillip And Westernport - 7920	50	70,800	70,849
Port Phillip And Westernport - 7921	750	70,850	71,599
Port Phillip And Westernport - 7922	300	71,600	71,899
Port Phillip And Westernport - 7923	50	71,900	71,949
Port Phillip And Westernport - 8021	100	71,950	72,049
Port Phillip And Westernport - 8022	100	72,050	72,149
Port Phillip And Westernport - 8122	50	72,150	72,199
West Gippsland - 7920	150	80,000	80,149
West Gippsland - 8020	300	80,150	80,449
West Gippsland - 8021	150	80,450	80,599
West Gippsland - 8022	150	80,600	80,749
West Gippsland - 8119	150	80,750	80,899
West Gippsland - 8120	300	80,900	81,199
West Gippsland - 8121	1,125	81,200	82,324
West Gippsland - 8122	1,125	82,325	83,449
West Gippsland - 8220	750	83,450	84,199
West Gippsland - 8221	4,125	84,200	88,324
West Gippsland - 8222	1,875	88,325	90,199
West Gippsland - 8223	750	90,200	90,949
West Gippsland - 8321	1,500	90,950	92,449
West Gippsland - 8322	1,875	92,450	94,324
West Gippsland - 8421	150	94,325	94,474
West Gippsland - 8422	300	94,475	94,774
West Gippsland - 8522	150	94,775	94,924
Wimmera - 7023	50	15,000	15,049
Wimmera - 7024	50	15,050	15,099
Wimmera - 7025	50	15,100	15,149
Wimmera - 7026	50	15,150	15,199
Wimmera - 7123	875	15,200	16,074
Wimmera - 7124	1,250	16,075	17,324
Wimmera - 7125	100	17,325	17,424
Wimmera - 7126	50	17,425	17,474
Wimmera - 7223	375	17,475	17,849
Wimmera - 7224	750	17,850	18,599
Wimmera - 7225	225	18,600	18,824
Wimmera - 7226	100	18,825	18,924
Wimmera - 7323	100	18,925	19,024
Wimmera - 7324	250	19,025	19,274
Wimmera - 7325	100	19,275	19,374
Wimmera - 7326	50	19,375	19,424
Wimmera - 7423	250	19,425	19,674
Wimmera - 7424	100	19,675	19,774
Wimmera - 7425	50	19,775	19,824
Wimmera - 7523	100	19,825	19,924
Wimmera - 7524	50	19,925	19,974