

FLOW-MER BASIN-SCALE EVALUATION OF 2022-23 AND 2014-23 COMMONWEALTH ENVIRONMENTAL WATER: KEY METRICS

Table 1 Overall summary metrics

Summary metric	22-23	14-23
Total surface runoff (GL)	67,760	33,271 (average)
Total CEW actions	102	1,081
Total CEW delivered (GL)	1,385	15,443
CEW delivered in Northern Basin	189	1,698
CEW delivered in Southern Basin	1,196	13,744
Number of valleys that received CEW	19	19
CEW barrage releases (GL)	753	6,038

Table 2 Ecosystem diversity key metrics

Summary metric	22-23	14-23
Ecosystem types supported (ANAE)	53	56
Length of waterways supported (km)	22,205	27,715
Lakes and wetlands inundated (ha)	202,071	249,079
Inundated floodplain (ha)	71,837	187,486
Inundated estuarine ecosystems (ha)	23,768	23,768
Number of Ramsar sites that received CEW	8	11

Table 3 Species diversity key metrics

Summary metric	22-23	14-23
Total CEW delivered (GL)	989	8,700
Number of CEW actions	71	666
Waterbird species supported across intensive monitoring areas	84	117
Waterbirds of conservation significance supported by CEW inundation across the Basin	35	59

Table 4 Vegetation key metrics

Summary metric	22-23	14-23
Total CEW delivered (GL)	904	10,590
Number of CEW actions	68	746
Taxa recorded at monitoring locations	291	790
Number of families recorded at monitoring locations	57	79
Culturally significant plant species recorded	43	75
Number of rare or threatened species recorded at monitoring locations	36	101

Table 5 Fish key metrics

Summary metric	22-23	14-23
Total CEW delivered (GL)	1,010	12,898
Number of CEW actions	61	602
Number of native fish species detected from in-channel sampling in Selected Areas	13	15

Table 6 Foodwebs and water quality key metrics

Summary metric	22-23	14-23
Total CEW delivered (GL)	1,121	12,150
Number of CEW actions	76	473
Additional export of salt over barrages due to CEW (k-tonnes)	151	4,153
Reduction of salt import at the Murray Mouth due to CEW (k-tonnes)	118	26,078

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Table 7 Contribution of Commonwealth water for the environment to flow components (in GL), and number and volume of water actions from 2014–23

Volumes are rounded to the nearest GL. Some water actions contribute to multiple flow components with primary flow component tabled.

	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22	2022–23
FLOW COMPONENT									
Base flows	714	1,074	838	351	701	591	403	1,472	516
Freshes	238	223	787	1,513	237	808	989	709	355
Wetland	240	112	97	68	172	73	318	581	205
Overbank	0	277	39	7	54	233	53	6	113
Bankfull	1	0	56	6	0	0	0	19	196
Total	1,194	1,686	1,818	1,945	1,163	1,705	1,762	2,786	1,385
NUMBER OF WATER ACTIONS									
Fish	49	61	58	82	64	64	73	90	61
Vegetation	55	96	56	69	94	90	110	108	68
Species diversity [#]	42	83	45	70	73	71	92	119	71
Water quality	40	53	47	65	37	44	52	59	76
VOLUME OF WATER ACTIONS (GL)									
Fish	1,082	1,551	1,659	1,835	1,080	1,081	1,416	2,186	1,010
Vegetation	704	1,567	1,360	1,780	490	738	833	2,214	904
Species diversity [#]	334	1,296	987	1,704	424	319	691	1,956	989
Water quality	1,089	1,269	1,596	1,605	729	1,172	1,331	2,237	1,121

- includes actions for 'Waterbirds', 'Frogs' and 'Other biota'

Table 8 Areas of Ramsar Sites supported (hectares) by Commonwealth water for the environment 2014–23

Ramsar area	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
NORTHERN BASIN									
Gwydir Wetlands: Gingham and Lower Gwydir (Big Leather) Watercourses	648	565	649	618	736	0	588	519	701
Narran Lake Nature Reserve	0	0	838	0	0	4,380	1,697	2,376	2,322
Macquarie Marshes	5,471	6,118	8,364	8,632	6,848	0	7,143	11,396	10,233
SOUTHERN BASIN									
Banrock Station Wetland Complex	11	495	0	301	91	59	37	243	0
Barmah and Millewa Forest	0	24,647	0	24,969	24,747	24,116	24,614	25,923	25,532
Coorong, and lakes Alexandrina and Albert Wetland	116,843	116,843	116,843	116,848	116,848	117,022	117,022	116,848	116,871
Fivebough and Tuckerbil Swamps	0	0	0	272	599	272	599	0	0
Hattah-Kulkyne Lakes	965	954	0	842	0	125	0	0	0
NSW Central Murray Forests ^a	0	6,091	0	5,875	7,165	3,794	5,410	16,520	6,750
Riverland	504	3,574	321	4,277	3,298	2,775	3,904	1,452	76
Total	124,443	159,288	127,016	162,634	160,331	152,542	161,016	175,276	162,483

^a For this table, NSW Central Murray Forests includes Koondrook and Werai Forests – Millewa forest is included with Barmah Forest.