

Transmission Losses

Where water from the irrigation district is delivered using a watercourse, transmission losses will be incurred from the point at which it is released into the watercourse to the point at which it is extracted. These losses will be deducted from the amount of water that can be taken by an irrigator receiving water from the irrigation district via a watercourse.

Transmission loss rates will be determined by Tasmanian Irrigation and DPIPW Transmission loss rates under a watercourse authority via conveyance management plan (CMP) using the best available information on the conveyance efficiency and performance of a watercourse. In the future this information will be generated by the schemes infrastructure.

Tasmanian Irrigation has undertaken a number of studies of the watercourses used to deliver water. Summary results of these studies are presented in the tables below. The transmission loss rates will be applied for the 2014/15 irrigation season and will be reviewed annually as part of the watercourse authority conditions.

Isis River: estimated transmission loss rates						
Zone	Loss Estimate	Reach Length	Estimated Loss During Summer Operating Conditions	Typical summer flow inclusive of irrigation release (ML/day)	Estimated Loss During Winter Operating Conditions	Typical winter flow inclusive of irrigation release (ML/day)
Release Point – Auburn	Moderate to High	7.5 km	1% per km ± 0.7% per km	10.84	0.7% per km ± 0.3% per km	12.01
Auburn – Isis Rd	High	9.25 km	1% per km ± 0.5% per km	10.19	0.5% per km ± 0.3% per km	14.07
Isis Rd – Macquarie Confluence	Moderate	12.05 km	0.5% per km ± 0.3% per km	9.50	0.1% per km ± 0.2% per km	16.90

Macquarie River (via Floods Creek & Blackman River): estimated transmission loss rates

Winter Losses

Flow (ML/day)	Reach 1 - Floods Ck Dam to Tunbridge		Reach 2 - Tunbridge to Macquarie River		Floods Creek Dam to Macquarie River
	Percentage Loss Estimate	Estimated Percentage Loss/km	Percentage Loss Estimate	Estimated Percentage Loss/km	Total Percentage Loss Estimate
5	7.5	0.64	7.52	0.73	15.02
10	7.25	0.62	7.18	0.69	14.43
20	6.7	0.57	6.78	0.65	13.48
30	6.15	0.53	6.37	0.62	12.52
40	5.65	0.48	5.90	0.57	11.55
50	4.95	0.42	5.29	0.51	10.24
60	4.3	0.37	4.74	0.46	9.04
63	4.1	0.35	4.40	0.42	8.50

Summer Losses

Flow (ML/day)	Reach 1 - Floods Ck Dam to Tunbridge		Reach 2 - Tunbridge to Macquarie River		Floods Creek Dam to Macquarie River
	Percentage Loss Estimate	Estimated Percentage Loss/km	Percentage Loss Estimate	Estimated Percentage Loss/km	Total Percentage Loss Estimate
5	10.85	0.93	11.52	1.11	22.37
10	10.6	0.91	10.98	1.06	21.58
20	10.1	0.86	10.16	0.98	20.26
30	9.7	0.83	9.42	0.91	19.12
40	9.2	0.79	8.67	0.84	17.87
50	8.65	0.74	7.79	0.75	16.44
60	8.05	0.69	6.98	0.67	15.03
63	7.95	0.68	6.71	0.65	14.66

* Loss rates will be determined as part of an operating agreement with the Elizabeth Macquarie Irrigation Trust. In 2014-15 these are expected to be nil.

Kittys Rivulet: estimated transmission loss rates						
Zone	Loss Estimate	Reach Length	Estimated Loss During Summer Operating Conditions	Typical summer flow inclusive of irrigation release (ML/day)	Estimated Loss During Winter Operating Conditions	Typical winter flow inclusive of irrigation release (ML/day)
Release Point – Trappers Hut Creek Confluence	Moderate to High	5.2 km	1% per km ± 0.5% per km	7.50	0.7% per km ± 0.4% per km	8.50
Trappers Hut Creek Confluence – Kittys Corner	Moderate	6.8 km	0.5% per km ± 0.3% per km	10.56	0.3% per km ± 0.2% per km	13.70
Kittys Corner – Macquarie Confluence	Low to Moderate	11.6 km	0.4% per km ± 0.2% per km	14.04	0.2% per km ± 0.1% per km	19.32

Jordan River: estimated transmission loss rates						
Zone	Loss Estimate	Reach Length	Estimated Loss During Summer Operating Conditions	Typical summer flow inclusive of irrigation release (ML/day)	Estimated Loss During Winter Operating Conditions	Typical winter flow inclusive of irrigation release (ML/day)
Release Point – Lynwood	Low to Moderate	4.6 km	0.4% per km ± 0.2% per km	14.65	0.3% per km ± 0.2% per km	16.30
Lynwood – Munros Hill	Moderate	11.5 km	0.5% per km ± 0.3% per km	14.41	0.3% per km ± 0.2% per km	16.59
Munros Hill – Green Ponds Rivulet Confluence	Low to Moderate	18.3 km	0.4% per km ± 0.2% per km	12.40	0.2% per km ± 0.1% per km	14.02
Green Ponds Rivulet Confluence – Sand Hill	Moderate	18.7 km	0.5% per km ± 0.3% per km	9.95	0.2% per km ± 0.2% per km	13.52
Sand Hill– Elderslie	High	3.8 km	1% per km ± 0.5% per km	7.10	0.4% per km ± 0.3% per km	11.51

