

4.4 The current social, economic and environmental impact of salinity

4.4.1 Total economic costs of salinity

An economic assessment of the impact of salinity was conducted as part of the development of this plan and is described in Sinclair Knight Merz (2004d). Some of these economic calculations are detailed in the previous sections for each of the different assets. The cost of salinity was mainly estimated by determining the key assets subjected to a watertable depth of 2 metres or less and making assumptions about the degree of degradation of the asset due to the high watertable. The assumptions for the calculations are detailed in Sinclair Knight Merz (2004d).

Economic impacts that are particularly difficult to value include the decline in the value of a wetland or loss of biodiversity. These less tangible impacts are described elsewhere. Direct economic impacts related to 'Production' and 'Infrastructure' assets are valued in monetary terms, and include the estimated loss of agricultural production, and the costs as a result of repair and replacement of salt-damaged infrastructure - including roads, buildings and other services.

The total costs of salinity to agricultural production, roads, buildings and underground services infrastructure is estimated to be in the order of \$11 million per year (Table 9). This estimate may be considered as conservative given the additional range of costs that have not been able to be quantified in this assessment. Based on the costs able to be assessed, the costs to agricultural production comprised the majority of the total costs (Table 9). Ultimately, the costs of salinity place an additional financial burden on landholders (in the form of reduced income) and the allocation of local funds from councils and other service providers (including increased repair and maintenance of infrastructure), resulting in indirect impacts across the local economy.

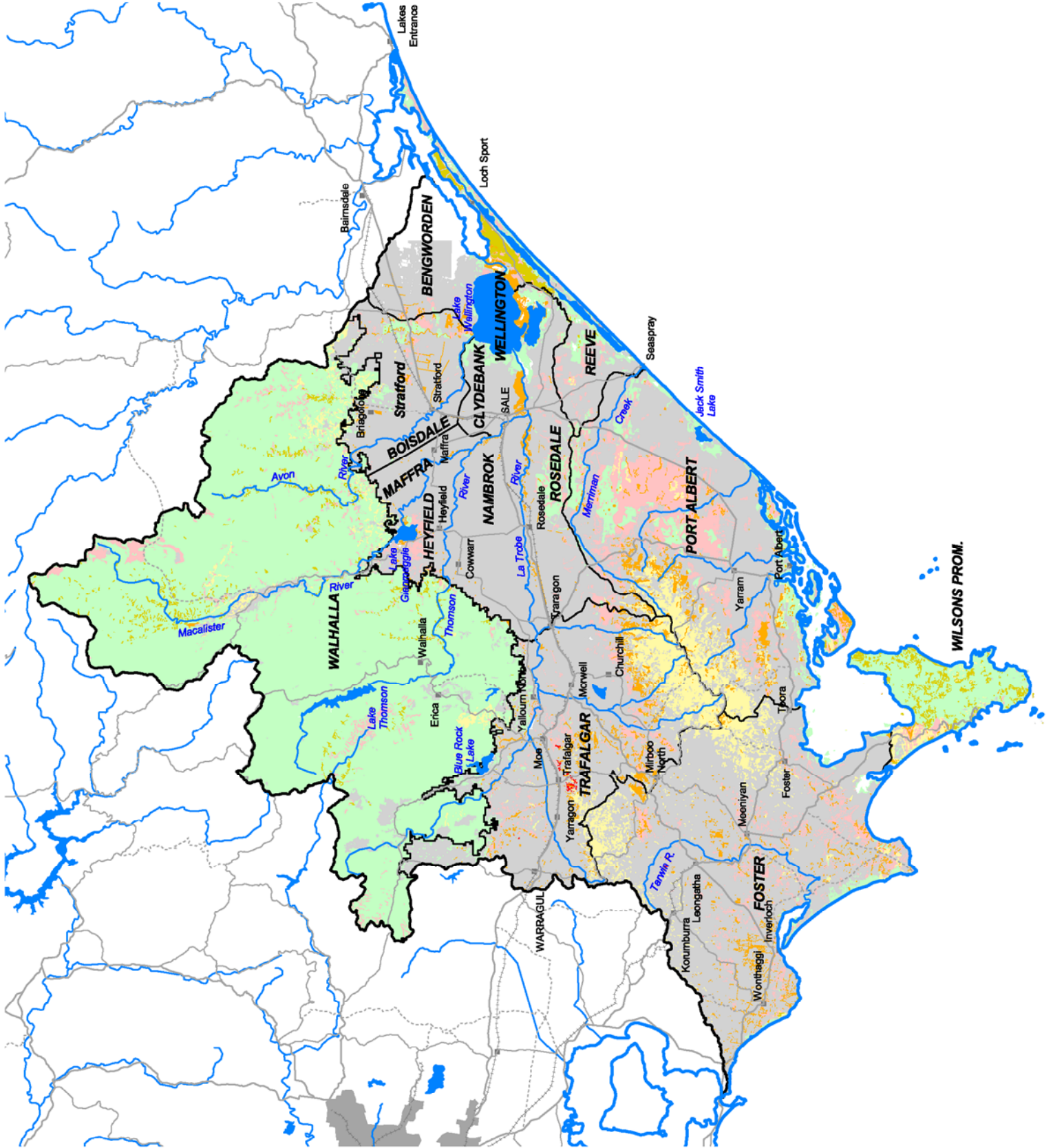
Figure 11



West Gippsland Salinity Management Plan Bioregional Conservation Status

0 10 20 30 40 50 Kilometres

- Management Area Boundary
- Bioregional Conservation Status
 - Presumed Extinct
 - Endangered
 - Vulnerable
 - Rare
 - Depleted
 - Least Concern
 - Not Applicable
 - No data



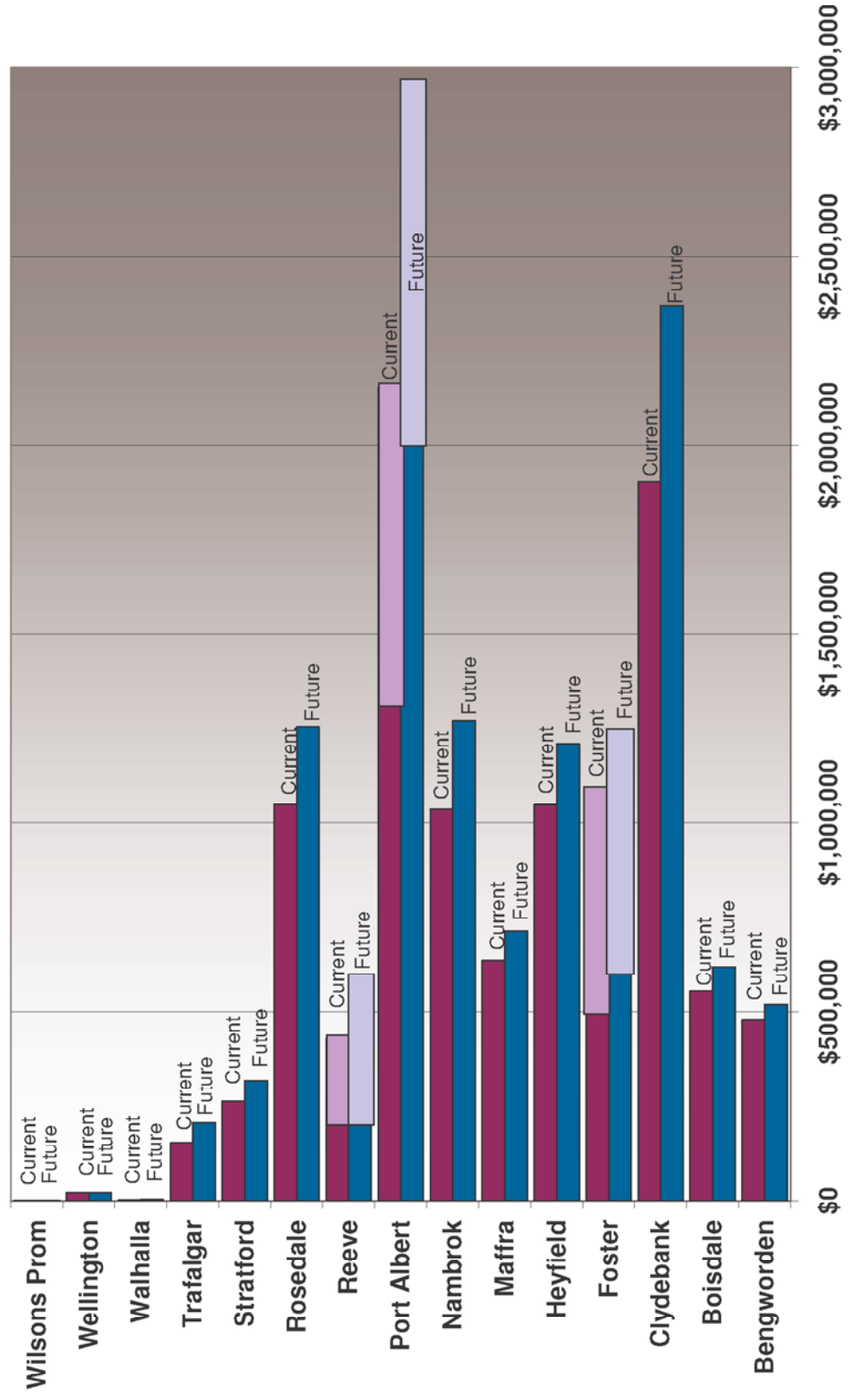
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Bioregional Conservation Status (Layout)

■ **Table 9: Estimated Current Costs of Salinity in West Gippsland Salinity Management Plan Area by Cost Category**

Salinity Management Area	Agriculture	Buildings	Roads	Underground Services	TOTAL
Bengworden	\$ 460,000	\$ 3,000	\$ 16,000	\$ -	\$ 479,000
Boisdale	\$ 500,000	\$ 15,000	\$ 35,000	\$ 3,000	\$ 553,000
Clydebank	\$ 1,660,000	\$ 78,000	\$ 152,000	\$ 14,000	\$ 1,904,000
Foster	\$ 417,000* \$ 850,000^	\$ 71,000* \$ 144,000^	\$ 34,000* \$ 69,000^	\$ 11,000* \$ 22,000^	\$ 532,000* \$ 1,085,000^
Heyfield	\$ 930,000	\$ 57,000	\$ 47,000	\$ 12,000	\$ 1,046,000
Maffra	\$ 570,000	\$ 36,000	\$ 23,000	\$ 7,000	\$ 636,000
Nambrok	\$ 870,000	\$ 71,000	\$ 81,000	\$ 13,000	\$ 1,035,000
Port Albert	\$ 961,000* \$ 1,550,000^	\$ 197,000* \$ 318,000^	\$ 146,000* \$ 235,000^	\$ 30,000* \$ 49,000^	\$ 1,334,000* \$ 2,152,000^
Reeve	\$ 54,000* \$ 150,000^	\$ 76,000* \$ 210,000^	\$ 14,000* \$ 40,000^	\$ 10,000* \$ 27,000^	\$ 154,000* \$ 427,000^
Rosedale	\$ 830,000	\$ 36,000	\$ 177,000	\$ 6,000	\$ 1,049,000
Stratford	\$ 180,000	\$ 56,000	\$ 25,000	\$ 1,000	\$ 262,000
Trafalgar	\$ 70,000	\$ 53,000	\$ 19,000	\$ 11,000	\$ 153,000
Walhalla	\$ -	\$ 1,000	>\$ 1,000	\$ -	>\$ 2,000
Wellington	\$ 20,000	\$ -	\$ 1,000	\$ -	\$ 21,000
Wilson's Promontory	\$ -	\$ -	>\$ 1,000	\$ -	>\$ 1,000
TOTAL	\$ 7,552,000* \$ 8,640,000^	\$ 750,000* \$ 1,078,000^	\$ 772,000* \$ 920,000^	\$ 118,000* \$ 165,000^	\$ 9,161,000* \$ 10,803,000^

* Secondary salinity only, ^ Primary and secondary salinity. Primary salinity was assumed to be present in coastal plain areas of less than 2m AHD.

■ **Figure 12: Estimated current and future costs of salinity in West Gippsland***



*Light sections indicate predominantly primary salinity costs, dark sections indicate predominantly secondary salinity costs.