

This section proposes funding options for implementing the waste strategy to be considered by Council. As discussed in Section 3.2, under the Local Government Act, Council is able to place a separate charge to residents for the provision of domestic waste management services.

6.1 Council Wide Waste Charge

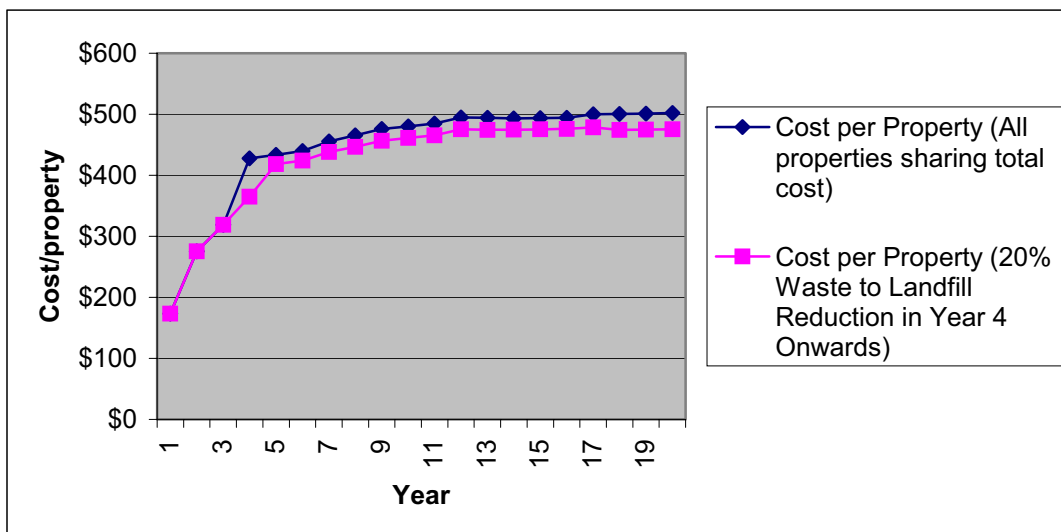
One option is to charge all ratepayers in the Council area an equal waste levy for providing all waste management services including domestic waste and recyclable collection and transfer, managing landfills and transfer stations, irrespective of whether the ratepayer has access to the service.

Shown in Figure 6.1 is the cost per rateable property in the Shire based on a 2% increase in the number of properties. As can be seen, following the increase in Year 4 the rate is constant around \$470 per property, with a steady increase to Year 20 taking the rate up to \$502 per property. The costs of implementing the waste strategy could therefore be met by borrowing funds for the capital works and funding it through a gradual increase in the waste charge as shown.

Reduction in waste by 20%

Based on implementing increased kerbside recycling, better resource recovery at Bungendore transfer station and in-house composting, it is not unreasonable to expect a 20% reduction in waste going to Woodlawn by Year 4 of the strategy. If this is achieved there will be a reduction in the required waste levy as shown in Figure 6.1.

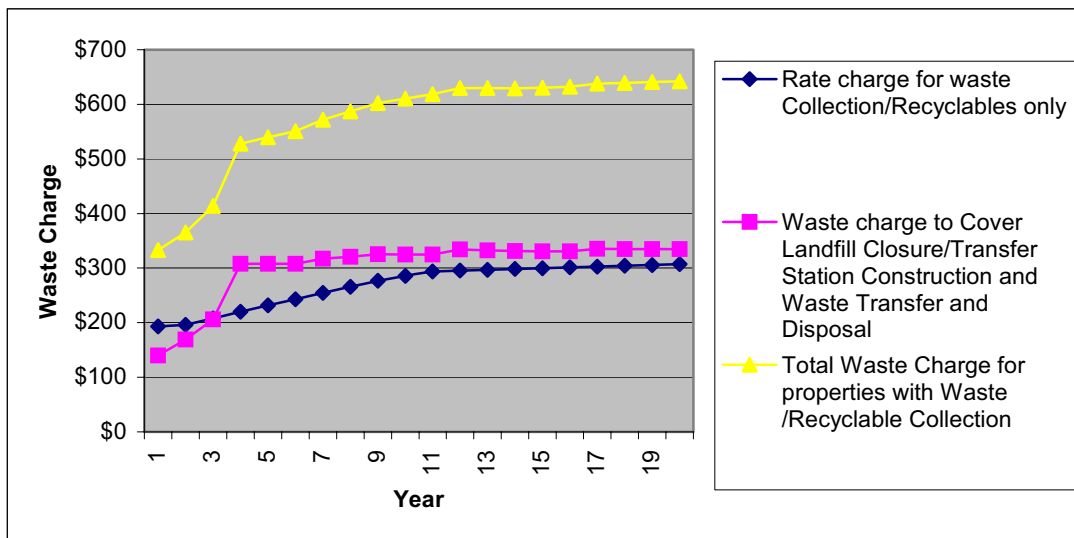
Figure 6-1: Council Wide Charge



6.2 User Pays Model

This option involves placing a waste charges to ratepayers based primarily on the service they are provided with. There will be a one charge for residents provided with a waste and recyclable kerbside collection service, and a separate landfill charge for the operation of transfer stations/landfills and transfer and disposal of waste. For example under this option ratepayers in the Urila, Burra, Royalla area who do not currently use any of Councils landfills and are not provided with a waste collection service, would not pay any waste charges until they are provided with the waste and recyclable collection service in Year 2. Rural properties, which may not receive a waste/recyclable collection service, would only pay the landfill charge. The waste charges under this option are illustrated in Figure 6.2. A full breakdown of the estimated waste charges over the 20-year period is provided in Appendix B. In determining the cost per property, Council provided the number of rateable properties. No reduction was made for vacant properties in these estimates.

Figure 6-2: User Pays Waste Charge



Gate Fees at Landfills/Transfer Stations

Under both options above it has been assumed no gate fees will be charged at Councils landfills or transfer station. During the first year of introduction of the waste levy the charges at Braidwood landfill will therefore be removed.

In the future a nominal charge may be introduced at the transfer stations/landfills to deter people from outside the Council area using the transfer stations/landfills and also to control the amount and type of waste to be dumped at the landfills and transfer stations. These additional funds could be used to offset some of the costs associated with implementing the strategy and thereby potentially reduce the landfill charge. Our financial analysis does not allow for the income generated from these activities due to the variables involved such as the number of vehicles using the facilities. These are uncertainties and it is

considered poor financial management to rely on this income to provide for the required services. This can be revisited following feedback from the community on this Draft Strategy, and the impact on introducing gate fees at appropriate locations can be reviewed.

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Palerang Council and only those third parties who have been authorised in writing by URS to rely on the report. It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report. It is prepared in accordance with the scope of work and for the purpose outlined in the Proposal dated 30 March 2005.

The methodology adopted and sources of information used by URS are outlined in this report. URS has made no independent verification of this information beyond the agreed scope of works and URS assumes no responsibility for any inaccuracies or omissions. No indications were found during our investigations that information contained in this report as provided to URS was false.

This report was prepared between April 2005 and June 2005 and is based on the conditions encountered and information reviewed at the time of preparation. URS disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Captains Flat Community Association, 2004, *Captains Flat Community-Tip Submission*

NSW EPA, 1996, *Environmental Guidelines: "Solid Waste Landfills"*

R.W. Corkery & Co Pty Ltd and Nolan-ITU Pty Ltd (April 2004), *Eastern NetWaste Subregional Waste Management Plan*

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Yarrawlumla Shire Council, 2003, *Yarrawlumla Shire Council Waste Strategy 2004-2024*

Appendix A Comparison of Options for Landfills

Braidwood

	Confingency	20% Yr 0	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Annual Cost
																							-6500
Braidwood																							
Immediate closure, rehabilitation of landfill and no transfer station	\$1,100,000				55000	20																	
Leachate/storm water controls/monitoring bores	\$60,000																						
NPV (take into account income of 24,000 from gate fees (Discount Rate 6%))	\$1,160,000	-\$1,392,000																					
		-\$1,352,707																					
Closure in 10 years when no remaining landfill life & no resource recovery and transfer station	\$1,060,000																						
NPV (Discount Rate 8%)		-\$1,272,000																					
NPV (take into account income of 24,000 from gate fees (Discount Rate 6%))		-\$1,215,326																					
		-\$1,102,499																					
Closure in 10 years when no remaining landfill life & small transfer station to Woodlawn	\$1,210,000																						
NPV (Discount Rate 8%)		-\$1,452,000																					
NPV (take into account income of 24,000 from gate fees (Discount Rate 6%))		-\$1,630,828																					
		-\$1,480,903																					
Closure in 10 years when no remaining landfill life & construct new landfill	\$1,210,000																						
NPV (Discount Rate 8%)	\$600,000	-\$2,412,000																					
NPV (take into account income of 24,000 from gate fees (Discount Rate 6%))	\$2,010,000	-\$2,275,056																					
		-\$2,054,537																					

Monitoring
 -6500
 Transfer Station
 Operation
 -93000 Disposal to Woodlawn @60/tonne
 Landfill
 Operation
 -150000

Net Present Value

Category	2000	20	Company	Annual Cost																			
				Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
1 Immediate closure, rehabilitation of landfill and no transfer station Calphong																							
Leachate from water conditioning tanks NPV (Discount Rate 8%)																							
2 Closure in 20 years when no remaining landfill lit. & no resource recovery and transfer station NPV (Discount Rate 8%)																							
3 Closure in 20 years when no remaining landfill lit. & small transfer station to Woodham NPV (Discount Rate 8%)																							
4 Closure in 20 years when no remaining landfill lit. & contract not landfill New Landfill Total NPV (Discount Rate 8%)																							

Monitoring		Annual Cost																				
Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

Transfer Station Operation		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	

New Landfill Operation		Y1	Y2	Y3
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Appendix B Waste Strategy Costing

<i>Item</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Year 6</i>	<i>Year 7</i>	<i>Year 8</i>	<i>Year 9</i>	<i>Year 10</i>
New Capital Costs	\$780,000	\$2,004,000	\$950,000	\$1,452,000	\$0	\$0	\$324,000	\$420,000	\$0	\$0
New Operating Costs	\$274,627	\$694,434	\$351,500	\$827,839	\$107,689	\$110,381	\$147,367	\$150,175	\$118,869	\$121,840
Existing Costs										
Landfill Operating Cost	\$477,900	\$237,298	\$256,888	\$100,082	\$102,584	\$105,148	\$100,239	\$54,484	\$63,205	\$64,785
Waste Transfer & Disposal Costs	\$0	\$180,631	\$299,596	\$550,063	\$1,304,661	\$1,337,277	\$1,382,709	\$1,456,439	\$1,554,155	\$1,593,009
Collection of Recyclables from Landfills	\$86,715	\$88,883	\$91,105	\$93,383	\$95,717	\$98,110	\$100,563	\$103,077	\$105,654	\$108,295
Kerbside Domestic Waste Collection Cost	\$117,875	\$120,822	\$314,032	\$335,788	\$358,088	\$380,946	\$404,374	\$428,389	\$453,004	\$478,234
Kerbside Recycling Collection Cost	\$57,810	\$185,203	\$424,935	\$461,082	\$498,133	\$536,111	\$575,037	\$614,937	\$655,834	\$687,513
Annual Loan Repayment (Capital Cost)	\$72,568	\$259,012	\$347,396	\$482,484	\$482,484	\$482,484	\$512,628	\$551,703	\$551,703	\$551,703
Total Annual Cost (Including loan repayment)	\$1,087,495	\$1,766,282	\$2,085,452	\$2,850,721	\$2,949,356	\$3,050,457	\$3,222,917	\$3,359,204	\$3,502,424	\$3,605,380
Number of Rateable Properties	6,282	6,408	6,536	6,667	6,800	6,936	7,075	7,216	7,360	7,508
Cost per Property (All properties sharing total cost)	\$173	\$276	\$319	\$428	\$434	\$440	\$456	\$466	\$476	\$480
Cost per Property (20% Waste to Landfill Reduction in Year 4 Onwards)	\$173	\$276	\$319	\$365	\$418	\$424	\$438	\$446	\$457	\$461
Total Cost of Domestic Waste and Recycling Collection including New services	\$274,086	\$682,476	\$738,967	\$796,871	\$856,221	\$917,056	\$979,412	\$1,043,326	\$1,108,838	\$1,165,747
Number of Rateable Properties with Domestic waste and Kerbside Recycling collection	1,420	3,484	3,554	3,625	3,698	3,772	3,847	3,924	4,002	4,082
Rate charge for waste Collection/Recyclables only	\$193	\$196	\$208	\$220	\$232	\$243	\$255	\$266	\$277	\$286
Approx. Cost of Disposal of Kerbside Collected waste only per property (included in Total cost of landfill management given below)	\$60	\$62	\$63	\$65	\$66	\$68	\$70	\$71	\$73	\$75
Total Cost of Landfill Closure/Transfer Station Construction and Waste Transfer and Disposal	\$813,409	\$1,083,806	\$1,346,485	\$2,053,850	\$2,093,135	\$2,133,401	\$2,243,506	\$2,315,878	\$2,393,586	\$2,439,633
Number of Rateable Properties paying Landfill Levy	5,819	6,408	6,536	6,667	6,800	6,936	7,075	7,216	7,360	7,508
Waste charge to Cover Landfill Closure/Transfer Station Construction and Waste Transfer and Disposal	\$140	\$169	\$206	\$308	\$308	\$308	\$317	\$321	\$325	\$325
Total Waste Charge for properties with Waste /Recyclable Collection	\$333	\$365	\$414	\$528	\$539	\$551	\$572	\$587	\$602	\$611

Item	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
New Costs										
New Capital Costs	\$0	\$708,000	\$0	\$0	\$0	\$0	\$252,000	\$0	\$0	\$0
New Operating Costs	\$124,886	\$136,750	\$131,209	\$134,489	\$137,851	\$141,297	\$193,006	\$148,451	\$152,162	\$155,966
Existing Costs										
Landfill Operating Cost	\$66,405	\$68,065	\$69,767	\$71,511	\$73,299	\$75,131	\$46,874	\$58,184	\$59,638	\$61,129
Waste Transfer & Disposal Costs	\$1,632,835	\$1,673,655	\$1,715,497	\$1,747,135	\$1,790,814	\$1,835,584	\$1,881,474	\$1,967,753	\$2,016,947	\$2,067,371
Collection of Recyclables from Landfills	\$111,003	\$113,778	\$116,622	\$119,538	\$122,526	\$125,589	\$128,729	\$131,947	\$135,246	\$138,627
Kerbside Domestic Waste Collection Cost	\$504,095	\$516,697	\$529,615	\$542,855	\$556,426	\$570,337	\$584,596	\$599,210	\$614,191	\$629,546
Kerbside Recycling Collection Cost	\$719,984	\$737,984	\$756,433	\$775,344	\$794,728	\$814,596	\$834,961	\$855,835	\$877,231	\$899,162
Annual Loan Repayment (Capital Cost)	\$551,703	\$617,572	\$617,572	\$617,572	\$617,572	\$617,572	\$641,017	\$641,017	\$641,017	\$641,017
Total Annual Cost (Including loan repayment)	\$3,710,910	\$3,864,502	\$3,936,715	\$4,008,445	\$4,093,216	\$4,180,107	\$4,310,657	\$4,402,398	\$4,496,432	\$4,592,817
Number of Rateable Properties	7,658	7,811	7,967	8,126	8,289	8,455	8,624	8,796	8,972	9,152
Cost per Property (All properties sharing total cost)	\$485	\$495	\$494	\$493	\$494	\$494	\$500	\$500	\$501	\$502
Cost per Property (20% Waste to Landfill Reduction in Year 4 Onwards)	\$465	\$475	\$475	\$475	\$475	\$476	\$478	\$474	\$475	\$476
Total Cost of Domestic Waste and Recycling Collection including New services	\$1,224,079	\$1,254,681	\$1,286,048	\$1,318,199	\$1,351,154	\$1,384,933	\$1,419,557	\$1,455,046	\$1,491,422	\$1,528,707
Number of Rateable Properties with Domestic waste and Kerbside Recycling collection	4,164	4,247	4,332	4,419	4,507	4,597	4,689	4,783	4,879	4,976
Rate charge for waste Collection/Recyclables only	\$294	\$295	\$297	\$298	\$300	\$301	\$303	\$304	\$306	\$307
Approx. Cost of Disposal of Kerbside Collected waste only per property (included in Total cost of landfill management given below)	\$77	\$79	\$81	\$83	\$85	\$87	\$89	\$91	\$94	\$96
Total Cost of Landfill Closure/Transfer Station Construction and Waste Transfer and Disposal	\$2,486,831	\$2,609,821	\$2,650,666	\$2,690,245	\$2,742,062	\$2,795,174	\$2,891,100	\$2,947,352	\$3,005,010	\$3,064,110
Number of Rateable Properties paying Landfill Levy	7,658	7,811	7,967	8,126	8,289	8,455	8,624	8,796	8,972	9,152
Waste charge to Cover Landfill Closure/Transfer Station Construction and Waste Transfer and Disposal	\$325	\$334	\$333	\$331	\$331	\$331	\$335	\$335	\$335	\$335
Total Waste Charge for properties with Waste /Recyclable Collection	\$619	\$630	\$630	\$629	\$631	\$632	\$638	\$639	\$641	\$642

Limitation: In conducting the analysis in the report URS has endeavoured to use the best information available and most appropriate at the date of publication, including information supplied by the client. URS' approach is to develop analyses from first principles, on the basis of logic and available knowledge. Unless stated otherwise, URS does not warrant the accuracy of any forecast or prediction in the report. Although URS exercises reasonable care when making forecasts and predictions, factors in the process such as future market behaviour are uncertain and cannot be forecast or predicted reliably