

5.7 Years 7 (2011/2012) and Year 8 (2012/2013)

The following key actions are recommended for implementation in Year 7 of the strategy:

- Closure of Majors Creek Landfill and construction of a transfer station to take waste to Braidwood and then Bungendore transfer station.

The following key actions are recommended for implementation in Year 8 of the strategy:

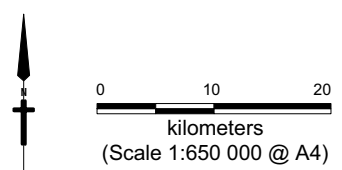
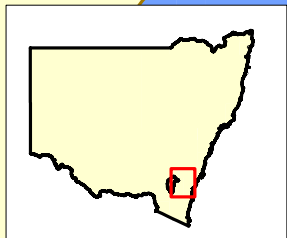
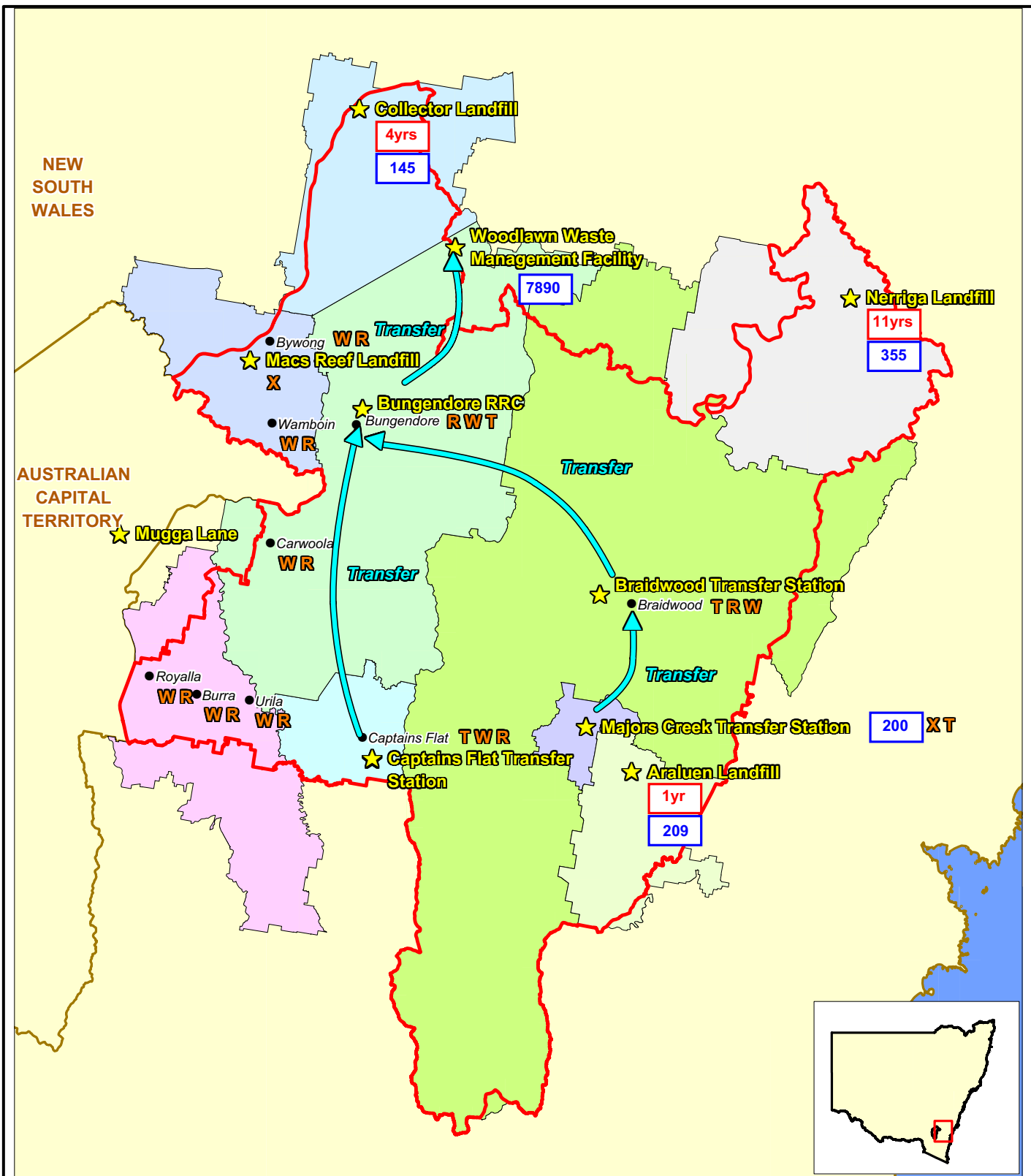
- Closure of Araluen landfill and construction of transfer station. Waste from Araluen will also be collected and sent to Bundgendore via Braidwood and Majors Creek.

The cost associated with waste management operation during these years is given in Table 5-6

Table 5-6 Years 7 to 8 Cost Summary

Summary of Capital and Operating costs	Year 7	Year 8
<i>Item</i>		
New Capital Costs	\$324,000	\$420,000
New Operating Costs	\$147,367	\$150,175
<i>Existing Costs</i>		
Landfill Operating Cost	\$100,239	\$54,484
Waste Transfer & Disposal Costs	\$1,382,709	\$1,456,439
Collection of Recyclables from Landfills	\$100,563	\$103,077
Kerbside Waste Collection Cost	\$404,374	\$428,389
Kerbside Recycling Collection Cost	\$575,037	\$614,937
Annual Loan Repayment (Capital Cost)	\$512,628	\$551,703
Total Annual Cost (Including loan repayment)	\$3,222,917	\$3,359,204

The waste management situation at the end of Year 7 and Year 8 are illustrated in Figures 5.5 and 5.6 respectively.

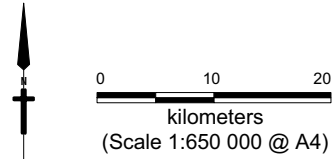
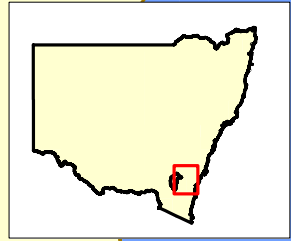
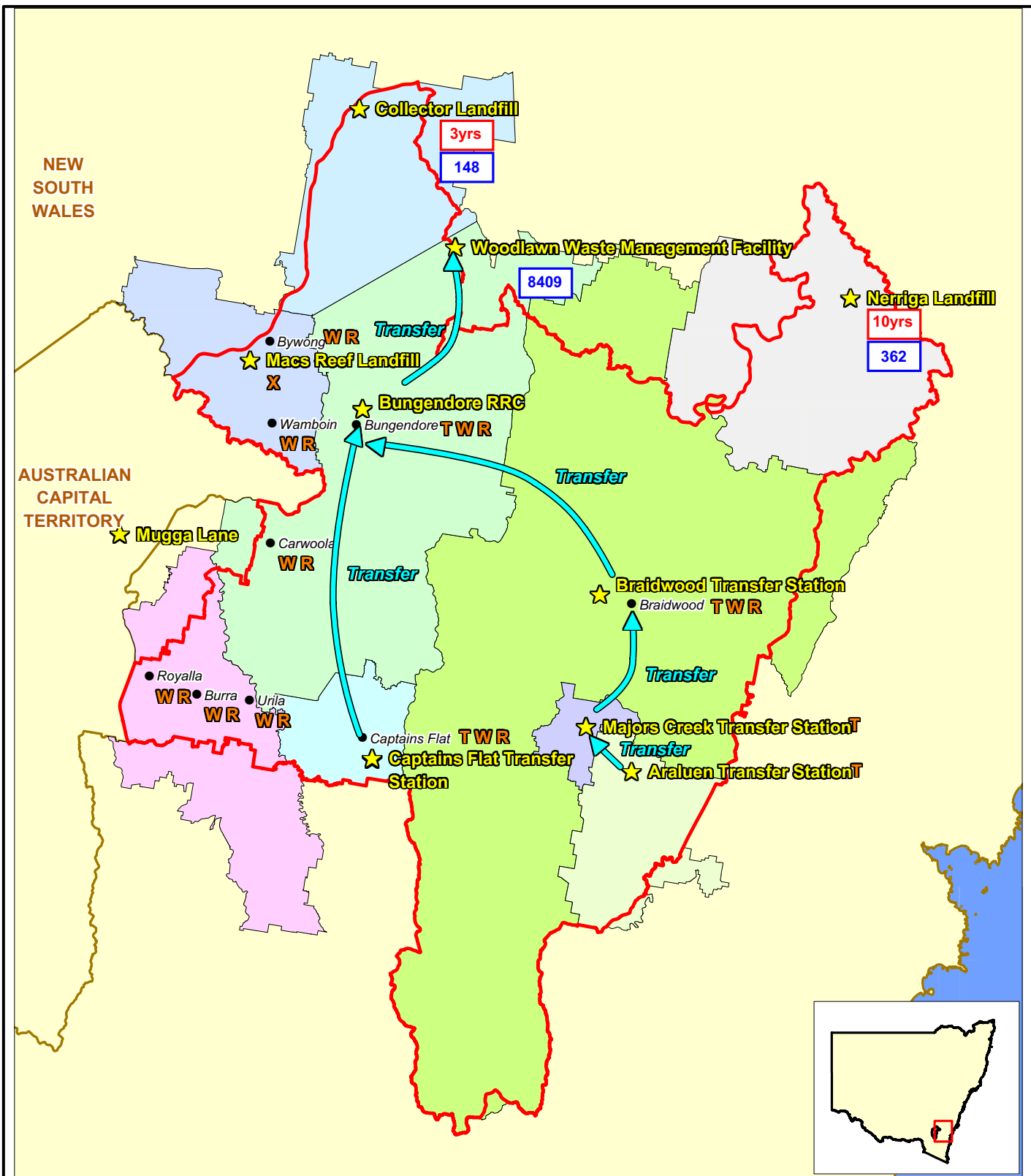


Source: Base data supplied by Palerang Council

KEY ACTIONS		Collection Zone	
- Closure of Majors Creek Landfill and Construction of Small Transfer and Recycling Facility		● Towns	■ Araluen (278 sq km)
● Palerang LGA Boundray		★ Landfill Location	■ Braidwood (2649 sq km)
★ Landfill Life Remaining		★ Landfill Location	■ Bungendore (1289 sq km)
■ Waste Tonnes/Year		★ Landfill Location	■ CaptainsFlat (167 sq km)
■ Kerbside Waste and Recyclables Collection		★ Landfill Location	■ Collector (509 sq km)
■ Transfer Station and Recyclable Drop-off		★ Landfill Location	■ MacsReef (331 sq km)
		★ Landfill Location	■ Majors Creek (70 sq km)
		★ Landfill Location	■ Mugga (547 sq km)
		★ Landfill Location	■ Nerriga (690 sq km)

Client PALERANG COUNCIL	Project PALERANG COUNCIL WASTE STRATEGY 2005-2025	Title END YEAR 7 (2011/12)
	Drawn: CDS Approved: Final Date: 30-06-2005	Figure: 5.5
	Job No: 43167240 File No: 43167240_008_Fig05_5.WOR	

This drawing is subject to COPYRIGHT. It remains the property of URS Australia Pty Ltd.



Source: Base data supplied by Palerang Council

KEY ACTIONS		Collection Zone	
Closure of Arulen Landfill and Construction Transfer Station and Recycling Facility		● Towns	■ Araluen (278 sq km)
<ul style="list-style-type: none"> □ Palerang_Boundray ★ Landfill Location 8yrs Landfill Life Remaining 182 Waste Tonnes/Year T Transfer Station and Recyclable Drop-off W Kerbside Waste and Recyclables Collection R 		■ Braidwood (2649 sq km)	■ Bungendore (1289 sq km)
		■ CaptainsFlat (167 sq km)	■ Collector (509 sq km)
		■ MacsReef (331 sq km)	■ Majors Creek (70 sq km)
		■ Mugga (547 sq km)	■ Nerriga (690 sq km)

Client PALERANG COUNCIL	Project PALERANG COUNCIL WASTE STRATEGY 2005-2025	Title END YEAR 8 (2012/13)
	Drawn: CDS Approved: Final Date: 30-06-2005	Figure: 5.6
	Job No: 43167240 File No: 43167240_009_Fig05_6.WOR	Rev: A A4

This drawing is subject to COPYRIGHT. It remains the property of URS Australia Pty Ltd.

Council Wide Waste Strategy

SECTION 5

5.8 Years 9 (2013/2014) through to Year 16 (2020/2021)

During these years there is no significant new capital works planned in the waste strategy except in year 12 with closure of Collector landfill. The cost associated with the ongoing waste management operations during these years is given in Table 5-7.

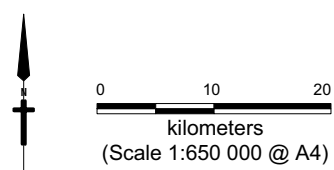
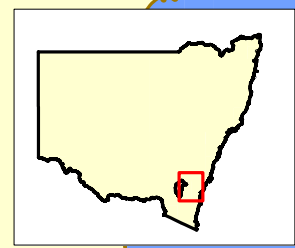
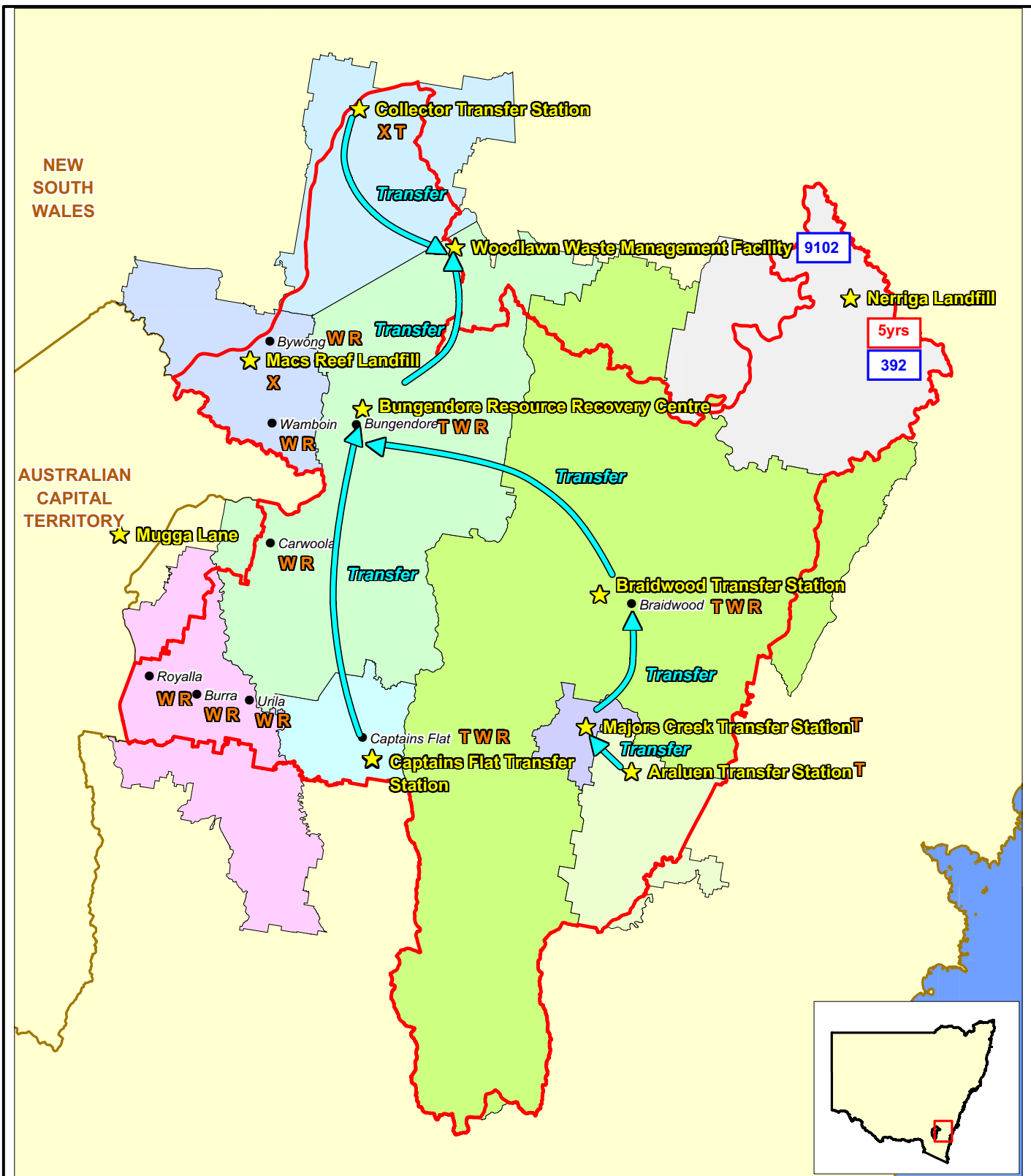
Table 5-7 Years 9 to 16 Cost Summary

Summary of Capital and Operating costs Item	Year 9	Year 10	Year 11	Year 12
New Capital Costs	\$0	\$0	\$0	\$708,000
New Operating Costs	\$118,869	\$121,840	\$124,886	\$136,750
Existing Costs				
Landfill Operating Cost	\$63,205	\$64,785	\$66,405	\$68,065
Waste Transfer & Disposal Costs	\$1,554,155	\$1,593,009	\$1,632,835	\$1,673,655
Collection of Recyclables from Landfills	\$105,654	\$108,295	\$111,003	\$113,778
Kerbside Waste Collection Cost	\$453,004	\$478,234	\$504,095	\$516,697
Kerbside Recycling Collection Cost	\$655,834	\$687,513	\$719,984	\$737,984
Annual Loan Repayment (Capital Cost)	\$551,703	\$551,703	\$551,703	\$617,572
Total Annual Cost (Including loan repayment)	\$3,502,424	\$3,605,380	\$3,710,910	\$3,864,502

Table 5-8 Years 9 to 16 Cost Summary Contd

Summary of Capital and Operating costs /Item	Year 13	Year 14	Year 15	Year 16
New Capital Costs	\$0	\$0	\$0	\$0
New Operating Costs	\$131,209	\$134,489	\$137,851	\$141,297
<i>Existing Costs</i>				
Landfill Operating Cost	\$69,767	\$71,511	\$73,299	\$75,131
Waste Transfer & Disposal Costs	\$1,715,497	\$1,747,135	\$1,790,814	\$1,835,584
Collection of Recyclables from Landfills	\$116,622	\$119,538	\$122,526	\$125,589
Kerbside Waste Collection Cost	\$529,615	\$542,855	\$556,426	\$570,337
Kerbside Recycling Collection Cost	\$756,433	\$775,344	\$794,728	\$814,596
Annual Loan Repayment (Capital Cost)	\$617,572	\$617,572	\$617,572	\$617,572
Total Annual Cost (Including loan repayment)	\$3,936,715	\$4,008,445	\$4,093,216	\$4,180,107

The waste management situation at the end of Year 12 is illustrated in Figures 5. 7



Source: Base data supplied by Palerang Council

KEY ACTIONS		Collection Zone	
Closure of Collector landfill and Construction of Transfer Station		● Towns	■ Araluen (278 sq km)
● Palerang Boundray		★ Landfill Location	■ Braidwood (2649 sq km)
★ Landfill Life Remaining		★ Waste Tonnes/Year	■ Bungendore (1289 sq km)
■ 8yrs		W Kerbside Waste and Recyclables Collection	■ CaptainsFlat (167 sq km)
■ 182		T Transfer Station and Recyclable Drop-off	■ Collector (509 sq km)
■ WR			■ MacsReef (331 sq km)
			■ Majors Creek (70 sq km)
			■ Mugga (547 sq km)
			■ Nerriga (690 sq km)

Client PALERANG COUNCIL	Project PALERANG COUNCIL WASTE STRATEGY 2005-2025	Title END YEAR 12 (2016/17)
	Drawn: CDS Approved: Final Date: 30-06-2005	Rev: A
	Job No: 43167240 File No: 43167240_010_Fig05_7.WOR	Figure: 5.7 A4

This drawing is subject to COPYRIGHT. It remains the property of URS Australia Pty Ltd.

5.9 Year 17 (2021/2022)

The following key actions are recommended for implementation in Year 17 of the strategy:

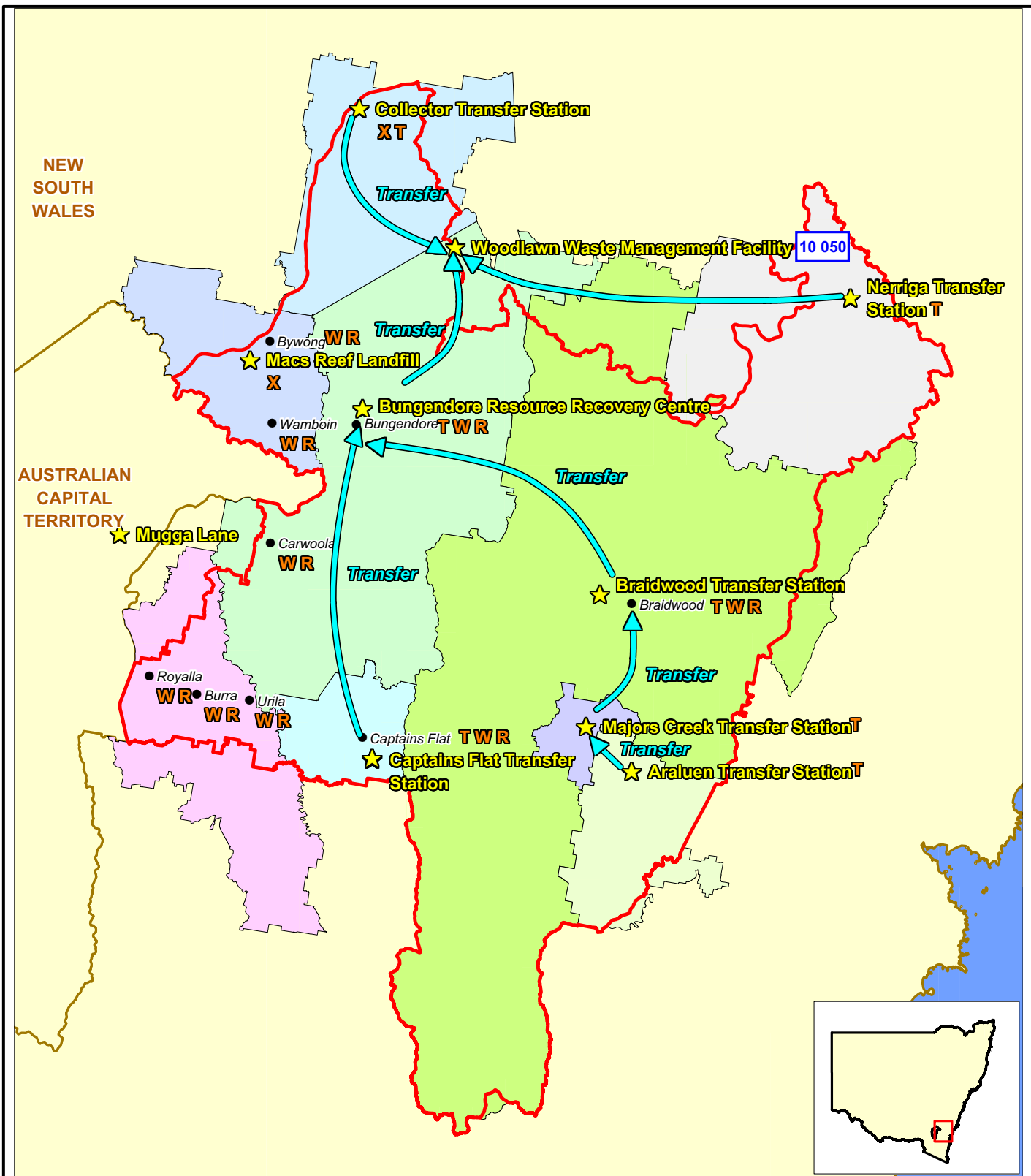
- Closure of Nerriga Landfill and construction of a transfer station to take waste to a major landfill outside Council area, such as Collex Woodlawn Landfill.

The costs associated with implementing Year 17 of the strategy are given in Table 5-9 (detailed costs are provided in Appendix B).

Table 5-9 Year 17 Cost Summary

Summary of Capital and Operating costs	Year 17
<i>Item</i>	
New Capital Costs	\$252,000
New Operating Costs	\$193,006
<i>Existing Costs</i>	
Landfill Operating Cost	\$46,874
Waste Transfer & Disposal Costs	\$1,881,474
Collection of Recyclables from Landfills	\$128,729
Kerbside Waste Collection Cost	\$584,596
Kerbside Recycling Collection Cost	\$834,961
Annual Loan Repayment (Capital Cost)	\$641,017
Total Annual Cost (Including loan repayment)	\$4,310,657

The waste management situation at the end of Year 17 is illustrated in Figure 5.8.



NEW SOUTH WALES

AUSTRALIAN CAPITAL TERRITORY

KEY ACTIONS

Closure of Nerriga Landfill and Construction Transfer Station and Recycling Facility

- Towns
- ▭ Palerang LGA Boundray
- ★ Landfill Location
- 182 Waste Tonnes/Year
- WR Kerbside Waste and Recyclables Collection
- T Transfer Station and Recyclable Drop-off

Collection Zone

- Araluen (278 sq km)
- Braidwood (2649 sq km)
- Bungendore (1289 sq km)
- CaptainsFlat (167 sq km)
- Collector (509 sq km)
- MacsReef (331 sq km)
- Majors Creek (70 sq km)
- Mugga (547 sq km)
- Nerriga (690 sq km)



0 10 20 kilometers

(Scale 1:650 000 @ A4)

Source: Base data supplied by Palerang Council

<p>Client PALERANG COUNCIL</p>	<p>Project PALERANG COUNCIL WASTE STRATEGY 2005-2025</p>	<p>Title END YEAR 17 (2021/22)</p>
	<p>Drawn: CDS Approved: Final Date: 30-06-2005</p> <p>Job No: 43167240 File No: 43167240_010_Fig05_8.WOR</p>	<p>Figure: 5.8</p> <p>Rev:A A4</p>

This drawing is subject to COPYRIGHT. It remains the property of URS Australia Pty Ltd.

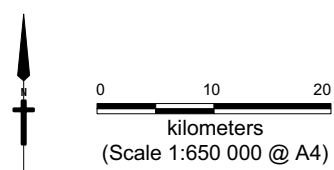
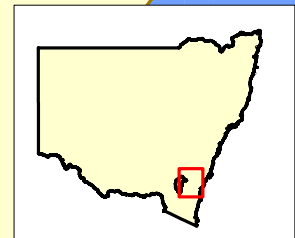
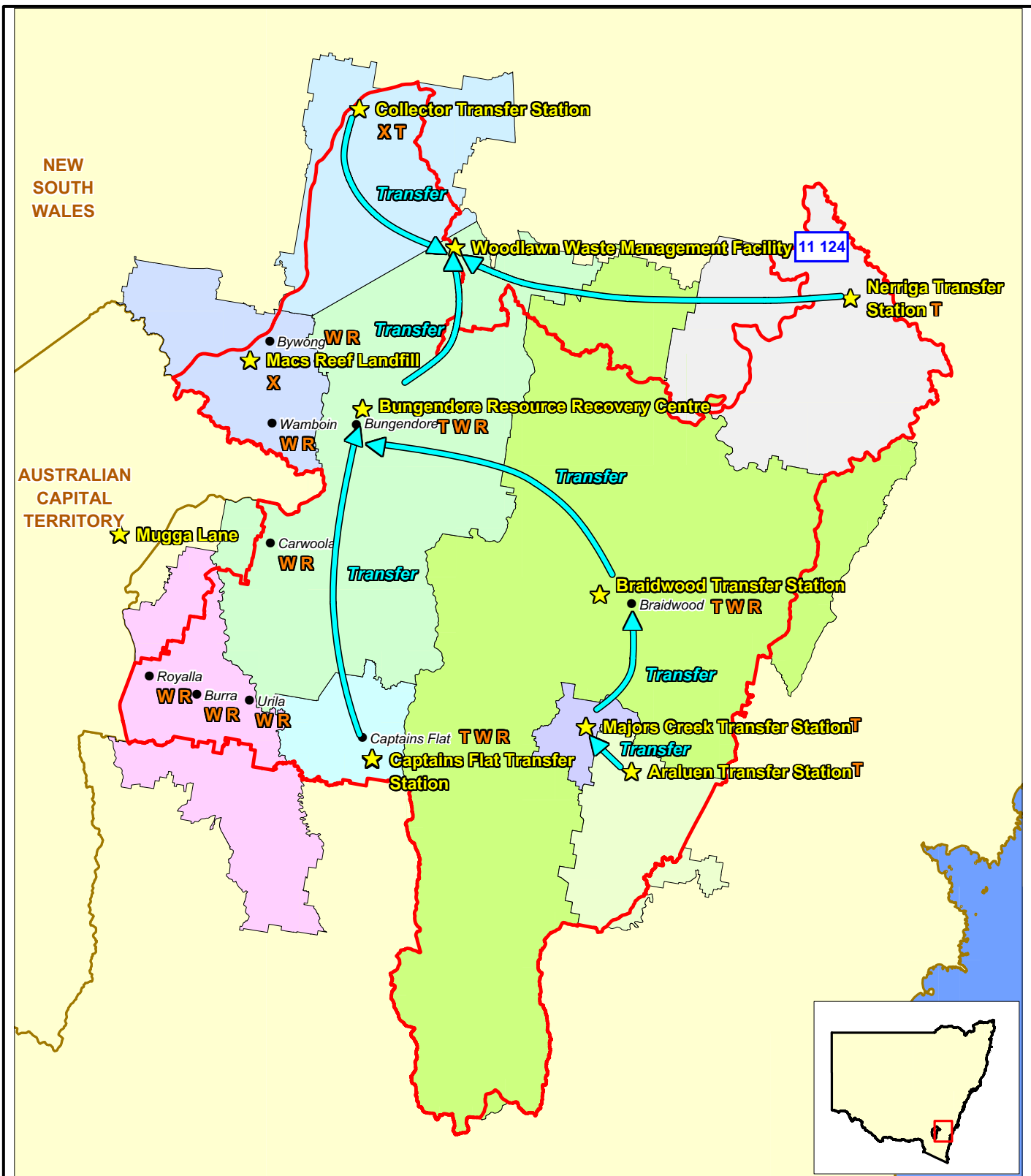
5.10 Year 18 (2022/2023) through to Year 20 (2024/2025)

During these years there is no significant new capital works planned in the waste strategy. The cost associated with the ongoing waste management operations during these years is given in Table 5-10. All residual waste generated in the Council area will be going to a major landfill outside Council area by the year 2022.

Table 5-10 Years 18 to 20 Cost Summary

Summary of Capital and Operating costs	Year 18	Year 19	Year 20
<i>Item</i>			
New Capital Costs	\$0	\$0	\$0
New Operating Costs	\$148,451	\$152,162	\$155,966
<i>Existing Costs</i>			
Landfill Operating Cost	\$58,184	\$59,638	\$61,129
Waste Transfer & Disposal Costs	\$1,967,753	\$2,016,947	\$2,067,371
Collection of Recyclables from Landfills	\$131,947	\$135,246	\$138,627
Kerbside Waste Collection Cost	\$599,210	\$614,191	\$629,546
Kerbside Recycling Collection Cost	\$855,835	\$877,231	\$899,162
Annual Loan Repayment (Capital Cost)	\$641,017	\$641,017	\$641,017
Total Annual Cost (Including loan repayment)	\$4,402,398	\$4,496,432	\$4,592,817

The waste management situation at the end of Year 20 (2025) is illustrated in Figure 5.9.



Source: Base data supplied by Palerang Council

●	Towns		
▭	Palerang LGA Boundray	▭	Collection Zone
★	Landfill Location	▭	Araluen (278 sq km)
182	Waste Tonnes/Year	▭	Braidwood (2649 sq km)
WR	Kerbside Waste and Recyclables Collection	▭	Bungendore (1289 sq km)
T	Transfer Station and Recyclable Drop-off	▭	Captains Flat (167 sq km)
		▭	Collector (509 sq km)
		▭	Macs Reef (331 sq km)
		▭	Majors Creek (70 sq km)
		▭	Mugga (547 sq km)
		▭	Nerriga (690 sq km)

Client PALERANG COUNCIL	Project PALERANG COUNCIL WASTE STRATEGY 2005-2025	Title END YEAR 20 (2024/25)			
	Drawn: CDS	Approved: Final	Date: 30-06-2005	Figure: 5.9	Rev: A A4
	Job No: 43167240	File No: 43167240_011_Fig05_9.WOR			

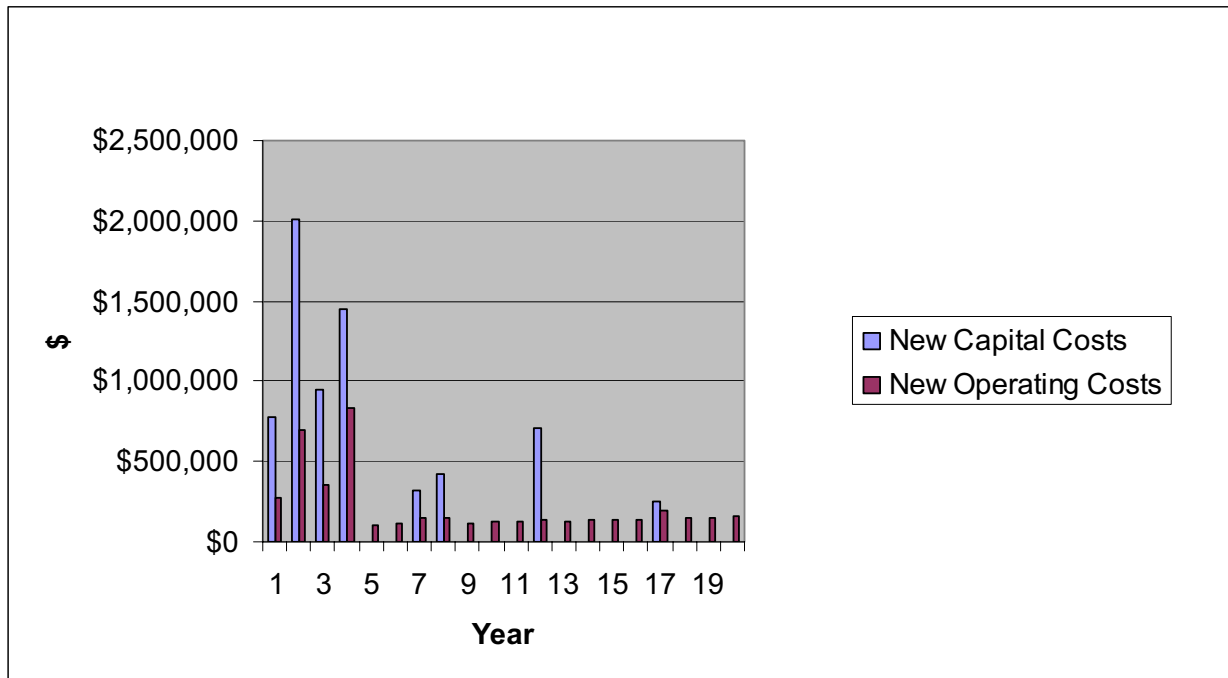
This drawing is subject to COPYRIGHT. It remains the property of URS Australia Pty Ltd.

5.11 Summary of Costing

5.11.1 New Capital and Operating Costs

Provided in Figure 5.9 is a summary of the new capital and operating costs incurred over the 20 year period of the waste strategy. As expected the major capital works will be carried out in the first five years of the strategy due to the current condition of the landfills and the need to close and rehabilitate several within the first five years.

Figure 5-9: New Capital and Operating Costs



5.11.2 Operating costs

The waste management operating costs for Palerang Council over the 20 year period of the waste strategy are illustrated in Figure 5.10. As expected, it can be seen that as the landfills are closed the landfill operating costs significantly reduce, however the waste transfer and disposal costs increase, in particular in Year 4, when waste will be taken to Woodlawn or another major landfill located outside the Council areas such as Mugga Lane, ACT. Kerbside waste and recyclable collection costs increase sharply in year 1 and 2, with the introduction of services in Bungendore and Captains Flat (kerbside recycling) and eastern rural residential areas (domestic and kerbside waste collection services).

Figure 5-10: Total Operating Costs

