ORDINARY MEETING OF COUNCIL

ENCLOSURES

Tuesday 24 June 2014

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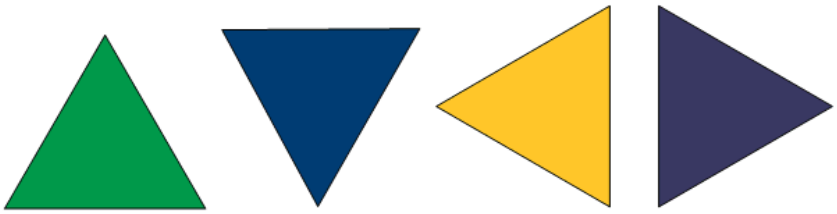
REGIONAL WASTE AVOIDANCE AND RECOVERY STRATEGY

22 MAY 2014



Prepared by:

Wright Corporate Strategy for the Southern Councils Group

"Supported by the NSW Environment Protection Authority with funding from the Waste Levy"

EXECUTIVE SUMMARY

The Southern Councils Group (SCG) is a voluntary peak organisation of Councils in the Illawarra and South Coast Regions of NSW. The SCG works collaboratively for better regional outcomes in waste management and various other service areas. SCG leads several regional programs to improve waste management and resource recovery activities in the region.

SCG has developed this *Regional Waste Avoidance and Recovery Strategy*. This work with funding through the NSW EPA under an agreement between SCG and the EPA for a *Regional Coordination Support Package* on behalf of the Wollongong, Shellharbour, Kiama, Shoalhaven, and Wingecarribee Councils.

The *Regional Waste Avoidance and Recovery Strategy* is based on the idea of extending regional collaboration to address whole-of-region waste management and resource recovery issues– particularly where there is potential for co-funding grants available through the NSW *Waste Less, Recycle More* initiative. The Strategy recognises that each SCG member Council is independently implementing its own waste management and resource recovery strategy.

The draft *Regional Waste Avoidance and Recovery Strategy* sets out a framework for SCG member Councils to consider opportunities to:

- collaborate to support community-wide action in managing cross-regional issues such as litter, illegal dumping and safe stewardship of problem wastes;
- collaborate to use their collective buying power where feasible to secure the most cost-effective waste management and resource recovery contract terms;
- collaborate to establish and operate waste infrastructure and facilities, where it is cost-effective and feasible to do so, in delivering regional waste services.

The main strategic themes set out below are aligned to the *NSW Waste Avoidance and Resource Recovery Strategy 2013-21* (WARR Strategy) which was recently published by the NSW EPA.

Theme 1. Avoid and reduce waste generation

The progressive increase in waste generated over many years is generally regarded as a function of three main influences: population increase, product quality, and economic conditions. The growth rate of waste generation has generally been higher than average population growth. This Theme seeks to build on broad state-wide initiatives to reduce the rate of waste generation, including reducing food waste, promoting home composting, and supporting local reuse of discarded products to reduce entry to the

waste stream of reusable materials.

Theme 2. Increase recycling

The draft WARR Strategy sets a target of 70% for municipal recycling; a 19 percentage point increase on the current average regional recycling level. With garden waste recovery and processing already in place, the next logical step in the recycling agenda is to focus on the red residual waste bin. These garbage bins contain a high proportion of food waste, and a substantial proportion of recyclable materials which could have been discarded to the kerbside recycling bin.

This Theme describes regional initiatives to complement established Local Council strategies.

Theme 3. Increase community reuse and recycling and improve household problem waste collection

Community drop-off centres in convenient locations can be used to collect: problem wastes, including low level household toxic wastes including paint, batteries, smoke alarms etc; recyclable materials such as e-waste, paper/cardboard, beverage containers, and metals; and some products suitable for reuse.

Most regional Councils across NSW already operate facilities equipped to receive these sorts of wastes. The EPA has further developed the community drop-off centre concept and proposes uniform branding and accessibility to generate patronage. Grant funding is available through the Local Government Waste and Resource Recovery Program.

Some SCG member Councils have already submitted grant applications and scope exists for sub-regional collaboration to extend the network of drop-off centres. The program could be supported with a regional education and engagement activity.

Theme 4. Reduce littering and increase public place recycling

SCG and member Councils have prepared complimentary applications to draw on funding support to establish integrated litter reduction programs. The regional component focuses on community education and enforcement activity. Council applications include litter counts, bin infrastructure, and clean-up activity.

An enlarged network of attractive public place waste and recycling bins throughout the region could contribute to both reduced litter and improved public place recycling opportunities to further develop a recycling culture across the region.

Theme 5. Reduce illegal dumping

A *Regional Illegal Dumping Prevention Strategy* has been prepared and a Regional Illegal Dumping Coordinator has been appointed to assist with the implementation of the strategy. A series of television advertisements has been aired across the region to raise community awareness of the problem, penalties for illegal dumping, and options for lawful disposal.

SCG and member Councils propose to extend the current Illegal Dumping Program and have requested funding under the NSW Government *Waste Less, Recycle More* Initiative – Combating Illegal Dumping.

Theme 6. Increase regional collaboration

With a Regional Coordinator recently appointed, the SCG secretariat is now able to coordinate nominated waste programs and provide a single point for development of region-wide project funding applications. With further strengthening of capacity, the SCG secretariat could increase the strategic capability of the region and play a wider, more effective role in coordinating regional action for improved waste management and resource recovery.

The Regional Strategy includes Action Plans to deliver each of the above themes.

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1. INTRODUCTION

The Southern Councils Group (SCG) is a voluntary peak organisation of Councils in the Illawarra and South Coast Regions of NSW. The group works collaboratively for better regional outcomes in waste management and various other service areas. SCG leads numerous programs to improve waste management and resource recovery activities in the region.

SCG completed work in 2010 to assess options for waste processing and determine the relative merit of a regional approach in comparison with establishing processing operations at the individual Council level. This study demonstrated the merit of AWT waste processing over continued direct disposal, but found the options of regional, sub-regional and individual Council arrangements were broadly on par, and Council circumstances and readiness varied markedly indicating a preference for Council-specific action. Individual Councils within the region have, since 2010, progressed their strategic planning for waste processing at varying pace.

Significant issues and advances in waste management over recent years, and the potential for NSW Government funding assistance, have made it appropriate to move to the next stage in exploring collaborative opportunities for improved efficiency and better outcomes in waste management.

Accordingly, SCG has resolved to develop a *Regional Waste Avoidance and Recovery Strategy*. SCG has entered into a funding agreement with the NSW EPA for a Regional Coordination Support Package on behalf of the Wollongong, Shellharbour, Kiama, Shoalhaven and Wingecarribee member Councils. The package allows SCG to develop the Regional Waste Strategy, identify regional waste management and recycling needs and maximise funding opportunities under the *Waste Less, Recycle More* initiative.

The keys aspects addressed in preparing this *Regional Waste Avoidance and Recovery Strategy* are:

- The currency of waste strategies and business plans previously prepared or operating at individual Council level, and the scope for "...working together, separately" recognising the over-riding position of each Council with its own waste strategy.
- Opportunities for regional collaboration to address waste infrastructure needs and other waste management and resource recovery issues – particularly with potential for co-funding through the *Waste Less, Recycle More* initiative.

The Regional Waste Strategy is based on efficient management arrangements across the region, and development of substantive, potentially region-wide options for better outcomes – reduced costs, improved resource recovery, increased flexibility, and better

service provision. The strategy addresses proposals for infrastructure and systems to bring about scale efficiencies.

Looking beyond the region, SCG will collaborate with other similar organisations with a view to lobbying Governments to introduce new product stewardship arrangements and further regulate the packaging industry, producers and importers to ensure industry increases recycling and / or reduce levels of unnecessary packaging and contributes to the cost of waste management.

2. CURRENT SCG SITUATION

The Region

The Southern Councils Group (SCG) represents a voluntary grouping of five Councils in the Illawarra and South Coast Regions of NSW (Figure 2-1). The group includes:

- Wollongong City Council
- Kiama Municipal Council
- Shellharbour City Council
- Shoalhaven City Council
- Wingecarribee Shire Council.

Figure 2-1: Southern Councils Group LGAs

The geographic boundary of the five councils extends across the Illawarra and South Coast of NSW with a land area of more than 18,000 square kilometres. The population of the

region is around 430,000 residing in some 200,000 dwellings. Southern Councils group comprises 6.25% of the population of NSW (2011 Census). The residential population of half a million can double, and up to treble in coastal locations during the holiday periods from the October long weekend to Easter.

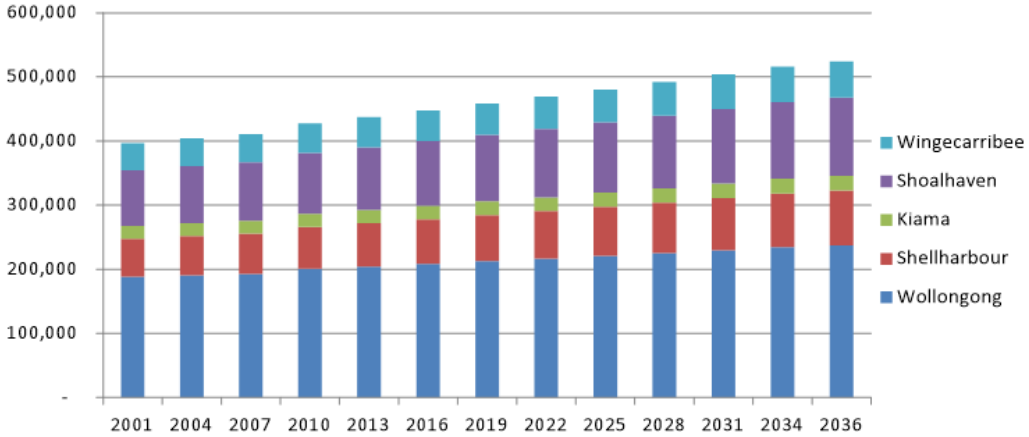
The northern part of the region has a large multicultural influence. An ageing retirement population resides in the south and west, and a small but strong indigenous presence in all areas. With an increasingly diverse manufacturing base, active sea ports, and a vibrant tertiary education sector, the region makes a significant contribution to the Australian economy.

The region has a strong industrial heritage in steel, related manufacturing and underground coal mining industries. In the face of challenges including the early 1980s recession, the global financial crisis, overseas competition and a high Australian dollar, the economic base of the region continues to diversify with reduced reliance on these traditional sectors for employment and output.

Population and Demographic Profile

Population forecasts to 2036, using past growth trends from 2001, 2006 and 2011 ABS census data are shown at Figure 2-2. The region's population in 2036 is expected to be around 524,000. For a breakdown of the population projections for each LGA refer to Appendix A.

Figure 2-2: Population forecast for SCG Region (source: ABS)

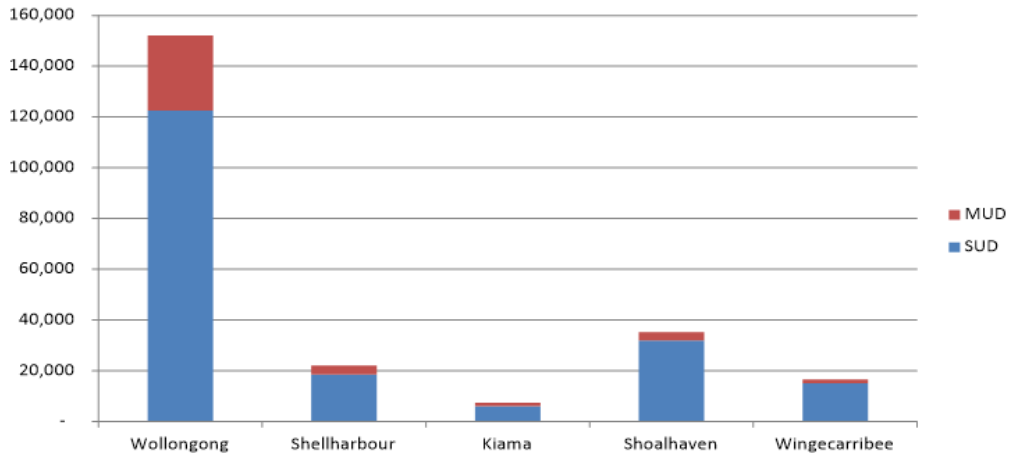


Dwelling Composition

Various studies and waste audits have demonstrated higher rates of waste generation are significantly positively correlated with a high proportion of separate houses. That is, more waste is produced from SUDs than MUDs. This is partially due to there being fewer people living in each MUD than in each single dwelling (in 2011 there were an average of 2.7 people living in each SUD and 1.7 people living in each MUD), and partially due to less green waste generated in MUDs[1].

The EPA has defined SUDs using the ABS definition *separate house* and MUDs to include *semi-detached, row or terrace house, townhouse, flat, unit or apartment*. In the 2011 audit, SUDs comprised approximately 80% of the total dwellings in the region, and MUDs 20%. There has been significant growth in the number of MUDs in SGC councils between 2001 and 2011, particularly Kiama, which has experienced an annual growth in MUDs of 3.31%. With increasing construction of MUDs across the region, the amount of waste generated per dwelling is expected to decrease. For an LGA breakdown of the percentage change in dwelling types between 2001 and 2011 see Appendix A.

Figure 2-3: Percentage Dwelling Type by LGA (ABS 2011)



Age Distribution Analysis

An ageing trend is observed in the entire region and particularly in Kiama according to analysis of census data between 2001 and 2011 (See Appendix A, Figure A-1). The number of 5-14 year olds living in Kiama has halved (14% down to 6%), while the number of 55-64 year olds more than doubled (9% up to 23%) in that period. The number of individuals in the 65+ age bracket has increased by 30%. Expansion of retirement villages and hospitals

[1] Zero Waste SA and Integrated Design Commission. *Report for State Waste Management Guidance for Medium Density, High Density and Multi-Unit Developments in Metropolitan Adelaide.* http://www.zerowaste.sa.gov.au/upload/resource-centre/publications/local-government/5642/MUDs%20consultation%20report.pdf

in the region could further increase the aging demographic. For more detailed information on the ageing demographic in the region, please refer to Appendix A.

Although there is some variability with the findings correlating age with recycling, there have been several studies that show a positive relationship between increased age and increased recycling. For example a large study performed by the Department for Environment, Food and Rural Affairs in the UK revealed that the older respondents were more likely to participate in recycling, with the most enthusiastic recyclers being aged 65 and over. This age group was also the most likely to make compost out of kitchen waste.

Proficiency in English

The majority of the population in the SCG are proficient in English which can allow greater ease of communication with residents and reduced costs associated with translation of education materials. The percentage of residents regionally that do not speak English is 6.2%, which is much lower than the NSW average of 14.6%. For a breakdown by LGA please Appendix A.

Waste and Resource Recovery Data

Collection Systems

In 2011/12 SCG Councils provided more than 184,000 kerbside waste services and recycling services and nearly 120,000 kerbside garden organics waste services – a total of nearly 500,000 services (see Table 2-1 below). In 2011/12 there were no combined food and garden organics kerbside services.

Table 2-1: Number of Services (Council-provided)

Council	Waste services	Recycling services	Garden waste services	Number of clean up services
Wollongong	86,643	86,643	86,643	Two pre-booked/year
Shellharbour	23,836	23,836	23,836	Unlimited pre-paid pre-booked/year
Kiama	8,789	8,789	8,383	Two scheduled/year (urban area only)
Shoalhaven	47,154	47,154	0	Unlimited pre-paid pre-booked/year
Wingecarribee	18,077	18,077	0	Two pre-paid pre-booked/year
Total	**184,499**	**184,499**	**118,862**	

The bin configurations and frequencies are outlined below (2012/13). Most of the SCG member Councils provide a choice between different sized residual waste bin sizes and collection frequencies consistent with EPA best practice (with the exception of Shoalhaven and Wingecarribee who do not currently provide containerised collection of garden waste).

Where there are bin size options available to residents the percentages of each of the sizes taken up are noted. Recycling bin configurations in all councils are consistent with current best practice guidelines. Bin lids for all waste streams are also consistent with best practice.

Table 2-2: Bin configurations and collection frequencies (Council-provided)

Council	Residual Waste		Recycling		Garden Organics	
	Bin Size	Frequency	Bin Size	Frequency	Bin Size	Frequency
Wollongong	80L (25%) 120L (68%) 240L (6%)	Weekly	240L	Fortnightly	240L	Fortnightly
Kiama	80L (10%) 140L (85%) 240L (5%)	Weekly	240L	Fortnightly	240L	Fortnightly
Shellharbour	140L (7%) 240L (93%)	Fortnightly	240L	Fortnightly	240L	Fortnightly
Shoalhaven	80L (5%) 120L (80%) 240L (15%)	Weekly	240L	Fortnightly	N/A	N/A
Wingecarribee	½80L (14%)* 80L (83%)** 2x80L (3%)	Weekly	240L	Fortnightly	N/A	N/A

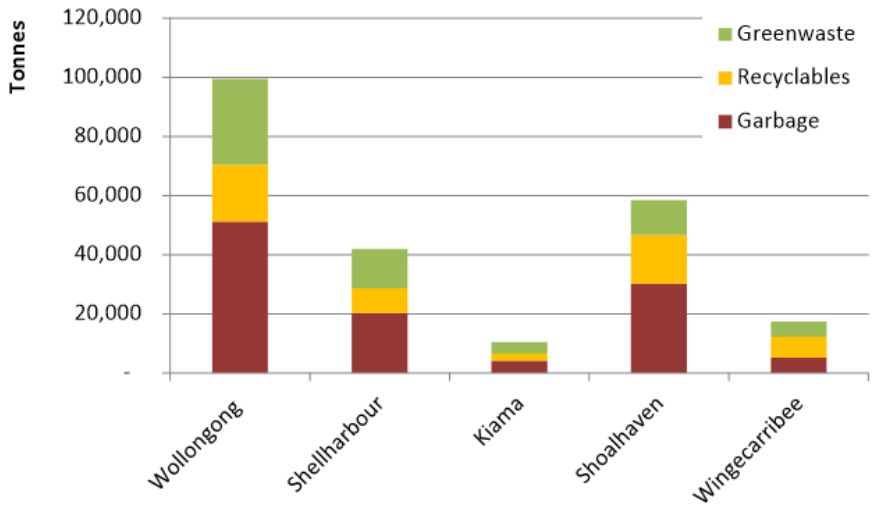
* One collection per fortnight
**Wingecarribee Council is procuring a service due to start in July that will offer 80L, 140L, and 240L bins.

Wollongong and Shellharbour have recently jointly procured new collection services that involve separate but similar contracts. Collections are due to commence on 1 July 2014.

Domestic Tonnage Data

SCG councils together generate more than 225,000 tonnes of domestic waste per year. Wollongong generates the majority of 44% of the total SCG waste, followed by Shoalhaven 26% and Shellharbour 18%.

Figure 2-4: Total Domestic - Waste and Resource Recovery (2011/12 EPA)



The amount of waste recycled, disposed and generated is set out in Table 2-3, which shows Wingecarribee with the highest recycling rate resulting from residual waste processing by SITA.

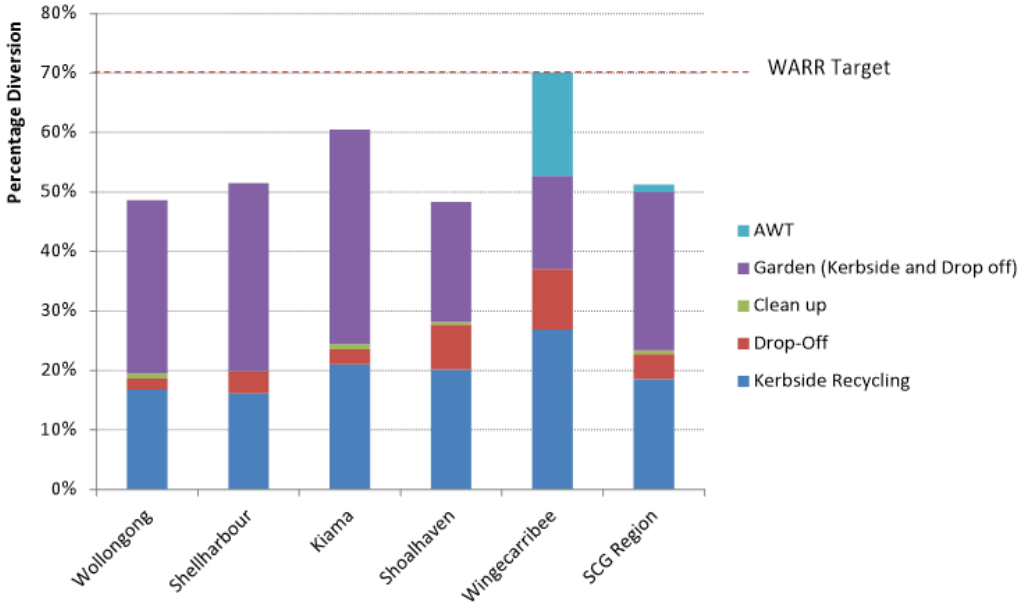
Table 2-3: Total Domestic - Waste and Resource Recovery Generation (2011/12 EPA)

Council Name	RECYCLED		DISPOSED		Total Domestic Waste Generated
	Domestic Kerbside, Clean Up, Drop off, AWT Recyclables		Domestic Kerbside, Clean Up, Drop off		
	Tonnes	%	Tonnes	%	Tonnes
Wollongong	48,404	49%	51,154	51%	99,558
Shellharbour	21,612	52%	20,347	48%	41,959
Kiama	6,296	60%	4,117	40%	10,413
Shoalhaven	28,301	48%	30,208	52%	58,509
Wingecarribee	12,153	70%	5,186	30%	17,339
SCG Region	116,766	51%	111,013	49%	227,779

Recycling Sources

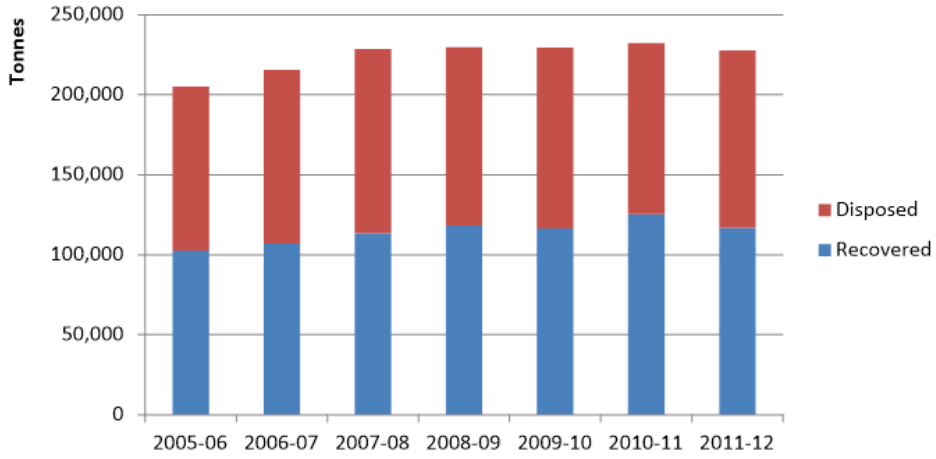
The following graph represents the progress of each council towards reaching the WARR target. Wingecarribee has already met the target. The contribution of each of the recycling streams is represented within each bar. Kiama has a relatively high recycling rate without inclusion of AWT treatment of mixed waste. If each of the councils processed the contents of their residual waste bin in an AWT facility it is expected they would also meet the 70% target. A regional breakdown of recycling is set out at Appendix A.

Figure 2-5: Progress toward WARR targets (2011/12 EPA)



A temporal representation of the change in domestic waste generation each year between 2005/06 and 2011/12 for the aggregate SCG LGAs is at Figure 2-6. Waste generated between 2005 and 2012 increased by 11% in line with the rate of population growth over the same period. Recycling for the same period increased by 14%, demonstrating a slight improvement in performance beyond the increase attributable to population growth.

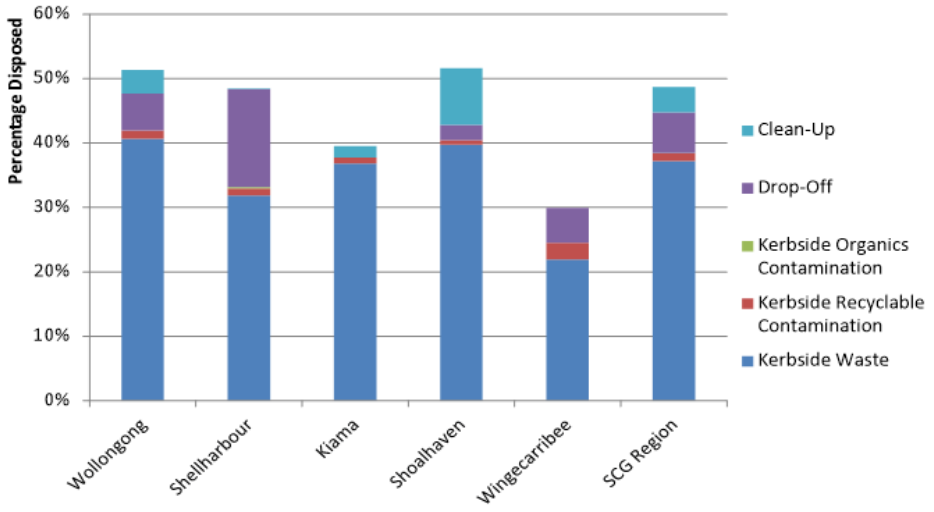
Figure 2-6: SGC Domestic Waste Generated, Recovered and Disposed 2005–06 to 2011–12 (Source: Local Government Waste and Resource Recovery Data Reports)



Disposal Sources

The following graph at Figure 2-7 contains a breakdown of the waste to landfill from the various domestic sources.

Figure 2-7: Percentage Disposed – All Domestic Sources (EPA 2011/12)



Drop Off and Kerbside Clean Up

There is significant variability in the data as a result of the various services provided by councils. Each council provides a different service type, for example Kiama have an e-waste day and have a high resource recovery rate due to the nature of the e-waste stream, whereas Shoalhaven provide residents with drop off tipping vouchers in lieu of kerbside clean up and report these figures against clean up. Some councils collect organics in the clean up and others do not. The difference between the services results in difficulty with meaningful comparisons.

The variation between Councils in the amount of clean up and drop off material is significant when viewed on a per capita basis. Residents in Shellharbour and Shoalhaven generate more than double the amount of residents from the other three LGAs.

Table 2-4: Summary of Waste Drop Off and Clean Up – tonnes (EPA 2011/12)

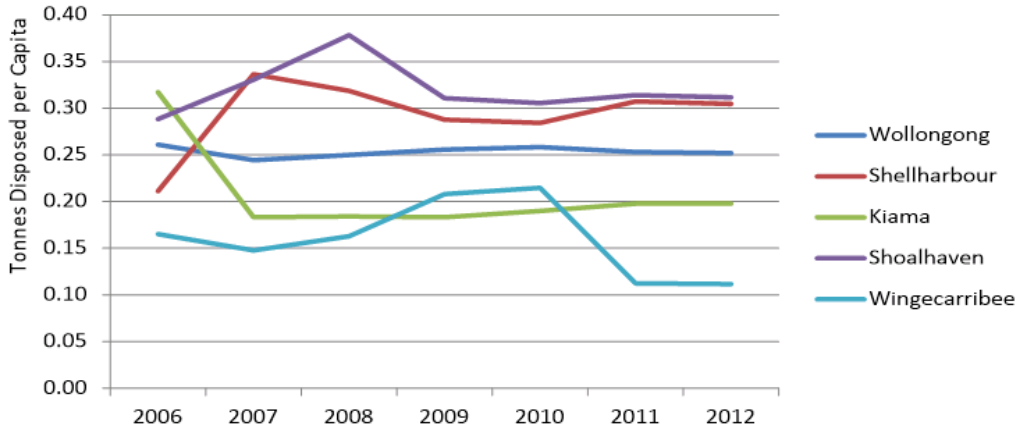
	Recycled	Landfilled	Generated	Population	Generated per capita
Wollongong	6,615	9,359	15,974	169,205	0.09
Shellharbour	6,347	6,420	12,767	57,899	0.22
Kiama	1,228	183	1,412	18,410	0.08
Shoalhaven	11,627	6,546	18,173	83,751	0.22
Wingecarribee	4,490	933	5,423	40,241	0.13
Region	30,307	23,441	53,748	369,506	0.15

Clean up and drop off specific data can be accessed at Appendix A.

Performance Analysis

On a regional level, the average total waste generation collected in all kerbside bins is around 18 kg/household/week and 7.4 kg/person/week. Analysis of the total tonnes disposed to landfill per capita from all the domestic waste streams (including clean up and drop off waste) shows that due to the AWT, Wingecarribee has the lowest tonnes disposed per capita followed by Kiama, whose tonnes per capita have dropped since 2006. The other Councils have remained relatively steady throughout the period.

Figure 2-8: Tonnes of Household Waste Disposed per Capita per Annum (2011/12 EPA)



Composition Studies and Audit Data

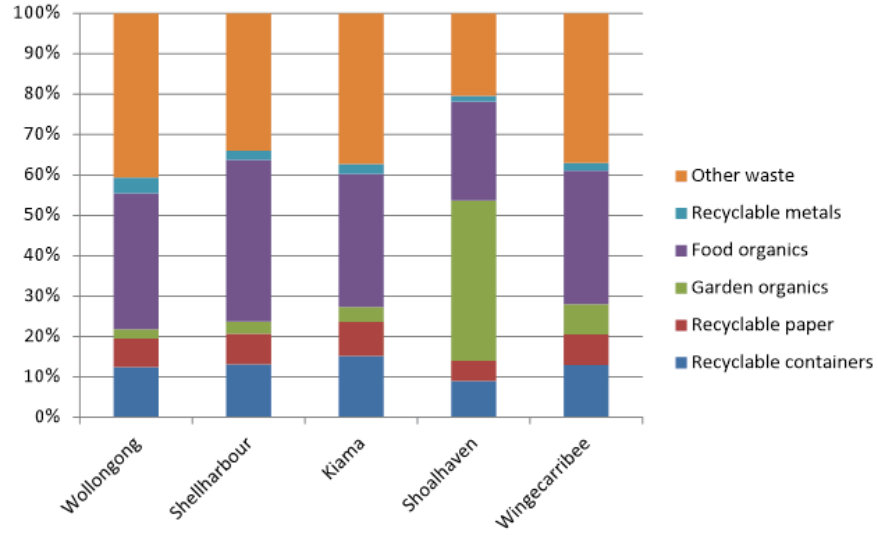
The abundant materials in the residual waste stream are set out in Table 2-5 below. The audit found that Shellharbour had the highest level of food organics; Shoalhaven had the most garden organics.

Table 2-5: Four Most Abundant Materials in the Residual Waste Stream (2011/12 EPA)

	Wollongong	Shellharbour	Kiama	Shoalhaven	Wingecarribee	Region
Paper/Card	7%	8%	8%	5%	8%	7%
Food Organics	34%	40%	33%	24%	33%	33%
Garden Organics	2%	3%	4%	40%	8%	11%
Recyclable Plastics	12%	13%	15%	9%	13%	13%
Metals	4%	2%	2%	2%	2%	2%
Potential Recoverable	59%	66%	63%	80%	63%	66%
Potential Recoverable (kg/hh/wk)	2.1	1.5	2.4	1.1	1.9	1.8

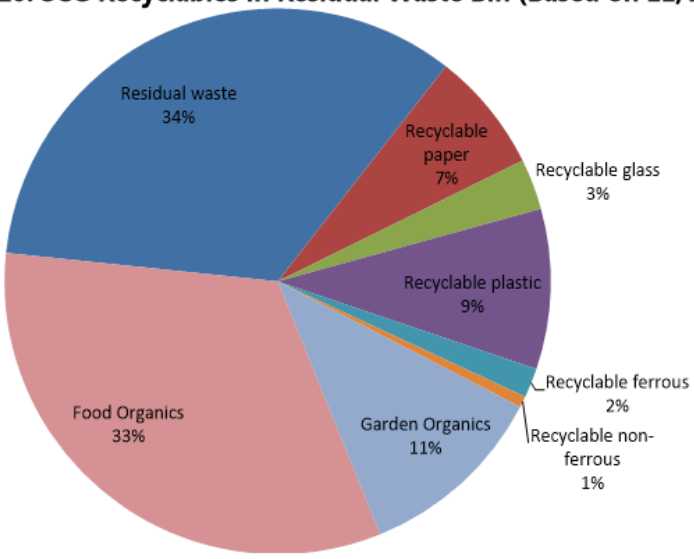
Figure 2-9 below contains a graphical representation of the above potential recoverable data, and includes the residual component making up the total 100% of the red bin.

Figure 2-9: SCG Residual Waste Bin - Composition of Recyclables by LGA (2011/12 EPA)



At a regional level, 66% of the waste is recyclable. This is made up of the streams and proportions shown in Figure 2-10 below. Organic materials are considered by the EPA as the "low hanging fruit" constituting 44% of the total.

Figure 2-10: SCG Recyclables in Residual Waste Bin (Based on 11/12 EPA Data)



Household Problem Wastes

Hazardous waste in recent audit data constitutes an average of 0.8%; a small fraction with significant ramifications. The ramifications become even more significant once treatment of mixed residual waste becomes a reality. Hazardous waste typically consists of:

- Paint
- Fluoro tubes
- Dry cell batteries
- Household chemicals
- Asbestos/building materials
- Pathogenic infectious medical
- Gas bottles.

Recycling Stream

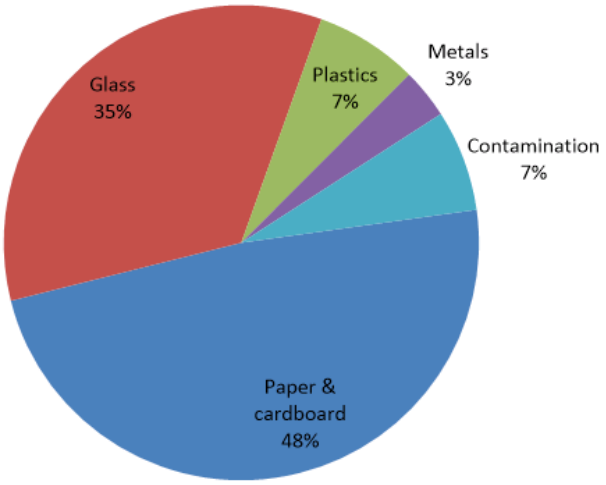
The composition of the recycling stream is relatively similar across the five councils. Kiama has the lowest level of recycling bin contamination as she following table and graph.

Table 2-6: Recycling Bin Composition (2011/12 EPA)

	Wollongong	Shellharbour	Kiama	Shoalhaven	Wingecarribee	Region
Contamination	6%	8%	4%	7%	9%	7%
Paper/cardboard	49%	49%	51%	45%	48%	48%
Glass	35%	30%	36%	40%	31%	34%
Plastics	7%	8%	6%	6%	8%	7%
Metals	3%	4%	3%	3%	4%	3%

As illustrated at Figure 2-11, paper and cardboard comprised approximately 50% of the recycling stream, and glass around 35%. Contamination levels averaged 7% regionally.

Figure 2-11: SCG Average Recycling Bin Composition (Based on 11/12 EPA Data)



Business Waste Flow Estimates

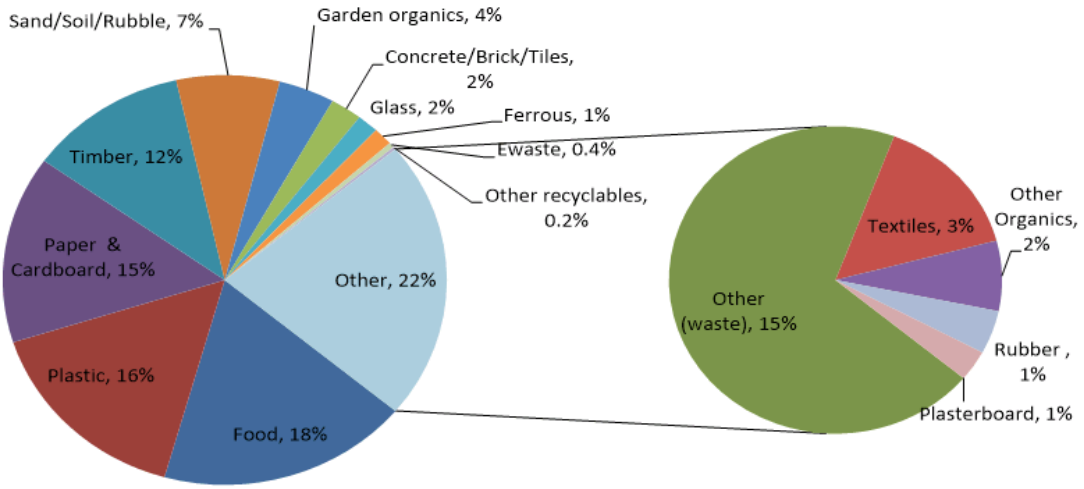
There is significant difficulty associated with obtaining accurate data for C&I and C&D waste in most regions, and the EPA does not collect the data at LGA level. Coarse estimates of composition and volume of C&I waste have been calculated and set out in this section in order to estimate C&I processing costs and benefits. Table 2-7 contains a WCS estimate of the C&I waste generated, recycled and disposed in each of the SCG councils. Tonnages generated in each LGA were estimated on a pro-rata basis using an average of population, number of people employed in local businesses and number of employing businesses.

Table 2-7: C&I Waste Tonnage Estimations (WCS Calculation from ABS & EPA Data)

Council	Generated	Recycled	Disposed
Wollongong	151,552	86,166	65,386
Shellharbour	47,183	26,826	20,357
Kiama	17,013	9,673	7,340
Shoalhaven	70,768	40,236	30,532
Wingecarribee	39,395	22,399	16,997
SCG	325,912	185,300	140,612

Figure 2-12 shows EPA waste composition audit data for NSW in the absence of regional data. Materials with valid recycling options are in the pie on the left and more difficult to recycle materials or materials not currently recycled are on the right. Approximately 80% of the materials are potentially recyclable. Food, plastics, paper, cardboard and timber are the main recyclable materials.

Figure 2-12: Commercial and Industrial Landfill Audit Data NSW (EPA Data)



Construction and Demolition Waste

In the absence of C&D waste for the region an estimate of the quantity of waste was calculated using the average of population, number of New Home Starts in each area and the number of businesses employing people. NSW compositions were assumed. There is potentially 12,000 tonnes of C&D waste being sent to landfill in the region, with the recyclable components comprising 45%. A more detailed breakdown is at Appendix A.

Current Waste and Resource Recovery Operations and Contracts

Wollongong, Shellharbour and Wingecarribee's current collection and processing contracts are currently in the final negotiation phase. This indicates that it is not practical to consider a single region-wide contract for the period of this strategy's action plan. The current contract details at the time of writing are at Appendix A. Table 2-10 below sets the current disposal arrangements contracts for the relevant waste streams.

Table 2-10: Current Disposal Contracts (Council-provided)

	Services Covered	Service Provider	Material Processed	Contract Duration	Contract Expiry date
Wollongong	Landfill	In house	Putrescible	NA	NA
Shellharbour	Landfill	In house	Putrescible	NA	NA
Kiama	Landfill	Shellharbour Council	Putrescible	NA	NA
Shoalhaven	Landfill	In house	Putrescible	NA	NA
Wingecarribee	Disposal	SITA	AWT Process of residues	15 Years	May 2024
Wollongong	Landfill	In house	Putrescible	NA	NA

Waste Management and Resource Recovery Infrastructure

Both Wollongong and Shellharbour have ample landfill capacity, owned and operated by Councils. The Shoalhaven landfill will be completed within ten years and Shoalhaven City Council is moving to procure residual waste processing services to minimise disposal requirements. Council proposes to acquire a new landfill site while to accommodate process residues and waste material that is not suitable for processing.

Shoalhaven City Council also operates ten small local transfer stations deployed across the LGA. These take the place of small local tips. Waste and recyclables deposited at these transfer stations is collected and transferred to the central waste facility at Nowra.

Kiama and Wingecarribee Councils do not currently have landfill capacity within their LGAs. Kiama Municipal Council has access to the Shellharbour landfill and Wingecarribee Shire Council has a long term contract with SITA for residual waste processing and disposal of

residues. Waste management and resource recovery operating arrangements are described more fully at Appendix A.

SCG Member Council Strategic Themes

The strategic focus of each of the LGAs has been summarised below in Table 2-11. There is significant congruence across the region.

Table 2-11: Strategic Themes of Each SCG Member Council

LGA	Strategic Themes
Wollongong	Waste and sustainability best practice at Whytes Gully
	Actively avoids, reduces, reuses, and recycles
	Reduce illegal dumping
	Litter and illegal dumping reduced
	Council leadership in waste management and resource recovery
	Domestic waste processing to maximise recovery
Shellharbour	Waste avoidance
	Increase reuse and recovery from all streams
	Minimise impacts of waste operations on health and environment
	Ensure cost effectiveness and equitability
Kiama	Maximise diversion
	Improve value for money
	Empower the community to contribute to sustainable waste management
	Community actively avoids, reduces, reuses, and recycles
	Resilience to change; maximisation of new opportunities
Shoalhaven	Recover materials from domestic waste
	Conserve remaining landfill space
	Actively avoids, reduces, reuses, and recycles
	Protect community from rising costs
Wingecarribee	Community actively avoids, reduces, reuses, and recycles
	Examine recovery options for source separated organic waste
	Ensure efficiency of collection systems

3. REVIEW OF SCG GROUP SITUATION

SCG Purpose and Waste Programs

The Southern Councils Group (SCG) is a voluntary peak organisation of Councils in the Illawarra and South Coast Regions of NSW. The group works collaboratively for better regional outcomes in waste management and various other Local Council service activities.

Preventing and cleaning up illegally dumped waste is a key SCG program. A $0.9m funding agreement with the NSW EPA has assisted SCG to establish a Regional Illegal Dumping Prevention program across the full seven regional LGAs. The aims of the program are in line with the EPA framework and include:

- making dumping harder;
- increasing the risk of being caught;
- reducing rewards by denying financial benefits;
- removing excuses by educating and informing the community.

The NSW EPA and SCG have recently entered into a funding agreement for a *Regional Coordination Support Package* to undertake further strategic work in waste management. This includes developing the Regional Waste Strategy, identifying regional waste management and recycling needs, and maximising funding opportunities under the *Waste Less, Recycle More* initiative.

Strategic Issues and Challenges

In keeping with other Local Council services, waste management and resource recovery operations have undergone a revolution over the last 20 years. Now some 51% of municipal waste generated is recovered and recycled thanks to local government leadership, community participation and the emergence of various types of recycling technologies. In 1990 the recycling rate was around 20%. By 2021 the draft NSW *Waste Avoidance and Resource Recovery Strategy 2013-21* is proposing a 70% municipal recycling target.

Technologies and practices are now available to allow delivery of the ambitions set out in the WARR Strategy. But they come at a cost and carry some procurement and delivery risks. The do nothing option, on the other hand, is also costly as the waste disposal levy escalates each year and grant funding may not be readily available to laggard Councils.

These and other waste management pressures come at a time of emerging changes in the broader business of Local Government, in demographic and human settlement patterns, and in economic conditions.

This Section discusses some of the pressures and issues that are particularly relevant to future regional collaboration.

Recycling and Waste Processing Programs

Resource recovery is at the core of the strategic direction spelled out in the WARR Strategy and the previous recycling targets, although not yet met, have been increased in the new plan. The revised plan brings substantial pressure to further develop resource recovery initiatives.

Current Position

- The overall recycling rate for the region is 51% at 2011/12 – ahead of the NSW average of 47%. In fact, the recycling performance of all SCG member Councils exceeds the State average.

- All Councils offer kerbside recycling collection and drop off services and most achieve good yields. Most Councils offer garden waste collection and all provide for drop off services.

- One Council has recently implemented combined food and garden waste collection and processing services with commenced trials. This not only reduces disposal of some food waste, but provides the feedstock to manufacture high quality compost of great value to the community, with income from the product.

Issues & Challenges

- The 70% recycling target proposed by the EPA has been designed to be achievable (though in a recycling supply chain that is free of market failure). But a further leap will be required to bridge the Municipal recycling gap from the current average of 51% for the region to the new target 70% by 2021. This step will require two critical initiatives:

  a) Increased performance of the kerbside recycling system.

     A first step is capture of dry recyclable materials (particularly containers) that are currently discarded by residents to the red-topped household waste bins – these comprise more than 22% of the contents of red bins across the SCG region[2]. Improved household recycling performance is achievable through increased community education, through media advertising and personal contact. This can be supplemented by enforcement action where gross non-compliance is evident. Success relies on effective communication, a measure of

[2] Data provided by EPA, compiled from waste bin audits undertaken in 2011.

persuasion for some households, and continuing reinforcement of messages for the majority.

A second step in improving the kerbside recycling system requires successful development and maintenance of markets for recyclate materials. The quality of sorted materials can affect both market demand and price. Where market demand and prices are persistently low, such as for glass and paper, alternative local uses may be appropriate.

b) Recovery and processing of the organic fraction of household red bin waste.

Diversion of food waste to productive uses could be achieved (albeit at high cost and risk) by acquiring a sophisticated AWT process and using the mixed red bin waste as the feedstock. The combined food and garden waste collection and processing initiatives could be extended across the region to provide economies of scale. These processes can be relatively inexpensive, straight-forward and effective.

As with recycling, success in capturing and processing organic household waste must rely on community participation. But it also requires carefully matching the choice of waste processing technology with the scale of available food and garden waste. As a general rule, the more sophisticated the technology, the longer the required private sector contract term. Contract terms of 15 to 20 years are necessary for capital costs to be written-off over the full life of the equipment. This in turn presents infrastructure procurement and delivery risks that require substantial technology procurement capacity.

Approaches Considered

- Initiatives to improve recycling yield were determined to be most appropriately implemented at Council level.

- Ongoing opportunities would be assessed for regional or sub-regional waste processing, litter, and waste dumping programs to ease pressure on landfill capacity and local amenity.

Regional Coordination

The Southern Councils Group has for 10 years played a lead role in coordinating the sustainable development of the Illawarra and South Coast regions. This has included undertaking joint initiatives in a number of programs, including for waste management and resource recovery.

Current Position

- Regional coordination has been successful in building the momentum needed to get results without interference with individual Council activities and services.
- The SCG is well positioned to make a larger contribution in coordinating regional programs for improved waste management and resource recovery. The EPA has contributed funding for additional resources to strengthen regional collaboration. EPA funding may be available for additional resources to strengthen regional collaboration.

Issues & Challenges

- The basis for and scope of future regional collaboration for improved waste management needs to be considered by SCG and its member Councils. The current broad arrangements could be continued, or moderately expanded to embrace coordination of special regional services such as tackling littering and combating illegal dumping, subject to the availability of additional capacity. A further step on the collaboration hierarchy could be to jointly establish infrastructure and facilities, where cost-effective, for delivery of regional waste services. There are significant opportunities for these sorts of initiatives and a measure of funding available through the *Waste Less, Recycle More* Initiative.
- This regional strategic planning process has largely been about determining how SCG member Councils can best collaborate for regional advantage. With each SCG member Council having its own Waste Strategy as the over-riding position, the complementary regional Waste Strategy is about:"...working together, and separately". This was based on the idea of collaborating on activities and services where it is cost-effective to do so.

Approaches Considered

- A variety of levels of Regional collaboration were considered as part of the regional strategic planning process. The options essentially cover different levels of joint activity at regional and sub-regional level. Member Councils could work together on operational activities, perhaps with full SCG collaboration on policy and planning issues. Commercialisation of SCG activities could also be considered.
- An alternative approach has been proposed by the Local Government Review Panel. The final report of the Panel proposes a combination of institutional changes including amalgamations, regionally centralised service arrangements, and a basis for strategic regional planning, including for waste management. The Panel report advocated increased regional collaboration (on a variety of issues) based on the idea of creating regional *Joint Organisations* based around major regional centres (where mergers do not proceed).

Strategic Planning for Waste Management

Current Position

- All SCG member Councils recognise the need for waste management strategies that feature, as a centrepiece, some form of AWT-based waste processing.
- SCG member Councils have formal, Council-approved waste management and resource recovery strategies in place.

Issues & Challenges

- The key challenge will be to ensure that SCG *Regional Waste Avoidance and Recovery Strategy* remains aligned with the member Council strategies and that general strategic directions that broadly align with NSW Government waste strategy.
- Development of Council Asset Management Plans is a key recommendation of the recent Treasury Corporation financial sustainability review[3]. This is likely to increase pressure for Councils to develop formal Asset Management Plan related to waste management assets.

Approaches Considered

- With limited data on waste characterisation available, it was considered essential to undertake a region-wide waste audit and waste characterisation study to develop improved waste data as a fundamental basis for designing initiatives.
- It was determined that the focus of the regional waste strategy and programs should be on the activities that the SCG, working as a collaborative group, can undertake to improve the overall efficiency and effectiveness of waste management in the region.

Financial Capacity

In 2013 the NSW Treasury Corporation (TCorp) completed a report on the financial sustainability of all 152 NSW Local Councils[4]. The study was commissioned to provide input for the Local Government Review Panel, and assist DLG and NSW Treasury to understand the financial pressures on local government. Of key relevance to sustainable waste management is the TCorp finding that the majority of Councils are routinely in financial deficit – in fact, 102 Councils reported operating deficits in 2012.

[3] NSW Treasury Corporation. *Financial Sustainability of the New South Wales Local Government Sector*. April 2013.
[4] NSW Treasury Corporation. *ibid*.

Key recommendations include adoption of medium term pricing paths to secure long term financial sustainability – by eliminating operating deficits and achieving "...at least a breakeven operating position on an ongoing basis." The final report of the Local Government Review canvassed the scope for Councils to raise increased revenue from fees and charges levied on services.

Current Position

- One SCG Member Council scored a *Sound* Financial Sustainability Rating (FSR) and four gained a *Moderate* FSR the Treasury Corporation Review[5]. Corresponding outlook ratings were recorded as *Negative* (one Council) and *Neutral* (four Councils).

Issues & Challenges

- Although these ratings place SCG member Councils around the centre of the FSR and Outlook distributions, the T-Corp report warns that Councils need to take action to secure long term financial sustainability – by eliminating operating deficits and achieving "...at least a breakeven operating position on an ongoing basis." This places additional pressure to ensure cost-effective funding in delivering waste processing initiatives to meet targets proposed in the draft NSW *Waste Avoidance and Resource Recovery Strategy*.
- The T-Corp report notes the special pressures on Councils resulting from regional factors – particularly from holiday peak loads which place pressure on services.

Approaches Considered

- SCG member Councils are reviewing asset management plans for current waste facilities to ensure integration with Council financial plans and capacity of facilities to support progressive delivery of the WARR Strategy.
- SCG member Councils should consider reviewing landfill and recycling gate fees to ensure revenue covers the fully distributed whole-of-life costs of delivering waste services and maintaining and renewing landfill and material sorting assets. This review should cover specific waste streams, particularly for problem wastes and commercial wastes, including e-waste, concrete, and garden waste.
- The level of Regional collaboration could be further developed to expand the current level of infrastructure support and access available to smaller Councils, possibly on a sub-regional, node and spoke basis.

[5] A *Moderate* rating indicates adequate financial capacity to meet financial obligations in the short to medium term.

Infrastructure and Operations

Current Position

- Wollongong and Shellharbour LGAs have secured ample landfill capacity:
  - Wollongong has planning approval for landfill capacity that would extend the current Whytes Gully Landfill for a further 40 years of waste disposal at current input rates.
  - Shellharbour has available some 20 years of landfill capacity.
- Shoalhaven has just 10 years landfill capacity available and is considering options for a future landfill site, while developing waste processing contract arrangements to reduce demand on landfill capacity.
- Two Councils have no landfill capacity and have developed alternative access arrangements.
- All Councils provide kerbside recycling collection services and there is some sub-regional collaboration on recyclables processing.
- Regional domestic MRF capacity is low.
- Landfill gas collection is limited.
- It appears there is no centrally located, Council-owned land suitable for a large AWT footprint around the geographic centre of the region.

The fundamental infrastructure and operations requirements for sound waste management over the next five to ten years are:

- continuing access to secure, sustainably managed landfill capacity;
- access to integrated recycling collection (and drop-off), processing and materials marketing services; and
- access to integrated organics collection (drop-off), processing and materials marketing services.

Issues & Challenges

- Despite the promise of emerging waste processing technologies, including AWTs to convert waste to compost or energy, a significant proportion of the waste stream arising in the region will, in fact, require continuing landfill disposal for the foreseeable future.
- Threats to recycling (and to a lesser extent organics resource recovery) systems are more subtle: the markets for many materials are fickle, prices are variable and

collection and transport cost to reprocessing markets can exceed materials prices on offer. This particularly applies to paper, glass and mixed plastics.

Approaches Considered

- Opportunities for consolidated regional development of critical waste processing infrastructure were considered, to build scale-economies using a lead Council to drive the initiative. Scope for a collaborative approach to residual waste processing warrants consideration following a general move by member Councils to combined food and garden waste processing.

Logistics

Current position

- The bulk of domestic waste arising in the region is moved to landfill facilities located within the LGA in which it was generated. This principle applies also the garden waste. There is obvious merit in processing or disposing of waste in proximity to where it was generated.

Issues & Challenges

- It is clear that the long, narrow spatial configuration of the region challenges the cost-effectiveness of transporting waste and recycling materials across multiple LGAs. Less clear is the idea that there may be instances where the nearest landfill for waste collected in one LGA may in fact be in the neighbouring LGA. In a truly integrated waste management system all waste would be transported to the location that minimises aggregate logistics costs.

Approaches Considered

- Previous work undertaken for SCG has revealed that the regional configuration and distances between major centres compromise potential gains from consolidating activities involving large waste volumes. It was determined that each opportunity should be considered on its merits.

Public Policy and Strategy Drivers and Trends

State and national waste policies and strategies are among the principal drivers for sustainable waste management the uptake of resource recovery technologies and practices leading to the greatly increased diversion of waste from landfill over the last decade. NSW has a comprehensive strategic regulatory and policy framework to guide and control waste management operations and practices.

- The NSW *Waste Avoidance and Resource Recovery Act 2003* provides the legislative basis for waste management through nomination of a waste hierarchy which

specifies priority for waste avoidance, reuse and recycling in preference to disposal of waste materials. The Act also provides for Extended Producer Responsibility schemes in NSW.

- The recently published draft NSW *Waste Avoidance and Resource Recovery Strategy 2013-21* updates the 2007 Strategy and contains new objectives and targets for improved waste avoidance and resource recovery, and reduced littering and illegal dumping. The recycling target for municipal waste has been increased to 70% by 2021.

- The NSW Government *Waste Less, Recycle More* initiative, announced in 2013, provides considerable opportunities for NSW Government co-funding of Local Council, NGO, and private sector recycling programs and infrastructure. An important focus of this initiative is increased recycling of food waste, plastics, timber, and paper/cardboard. The $465 million initiative comprises five key areas:
    - A $250 million waste and recycling infrastructure fund
    - A $137.7 Supporting local communities fund
    - A $58 million combating illegal dumping fund
    - A $20 million tackling litter fund
    - Measures to improve the operation of the NSW waste disposal levy.

- The NSW *Energy from Waste* policy has recently been published. This policy is based on recognition that integrated waste management can include the recovery of energy and resources from residual waste where reuse, reprocessing and recycling pathways are not financially or technically feasible.

- The NSW *Protection of the Environment Operations Act 1997* controls the Section 88 Waste Disposal Levy. The waste levy is subject to annual increases of $10/year plus GST.

National waste strategy has also developed new direction and is commanding more impact through policy and legislation. The National Waste Policy was strengthened in 2009 with the release of *Less Waste, More Resources*. It provides principles and focus areas to guide actions and sets key directions and priorities.

National action for producer responsibility has been taken up under COAG arrangements with federal legislation for Product Stewardship. The legislative framework for national product stewardship schemes is provided by the *Product Stewardship Act 2011*.

The National Television and Computer Recycling Scheme was established in 2011. The Regulations required importers and manufacturers of televisions and computers to join and fund an approved co-regulatory arrangement. The Regulations require industry to fund collection and recycling services to meet progressively increasing annual recycling targets, set as a proportion of the estimated total television and computer waste arising in Australia. These targets started at 30% in 2012–13 and increase to 80% by 2021–22.

Under the Clean Energy Act 2011 and emissions trading scheme, landfill operators are subject to requirements to report emissions and to acquire permits for CO2 equivalent emissions over a set threshold of 25,000 tonnes of CO2-e in any year. The increased cost is passed on to waste disposers.

A variety of alternative packaging resource recovery initiatives are under investigated at a national level through COAG. Container deposit schemes are included in the options being evaluated. Whatever scheme is implemented, a renewed focus is likely on recycling of beverage containers, non-beverage containers, and other types of packaging.

The Australian Packaging Covenant has introduced a co-regulatory extended producer responsibility scheme, of which NSW is a signatory, to alter packaging requirements. The focus is on sustainable packaging design, recycling of used packaging and reduction of litter from packaging. Non-signatories in NSW are subject to Part 5B of the Protection of the Environment Operations (Waste) Regulation 2005 requirements.

Review of Common Themes in UK Waste Strategies

Waste management and resource recovery strategy in the UK has been driven both by EU regulation and by the limited and declining availability of landfill capacity within the context of cultivating sustainable economic development. A review of current waste strategies of England, Scotland, Wales, and Northwest England by WCS has revealed themes that have much in common with NSW initiatives:

- A financial incentive through landfill tax to drive recycling and waste processing.
- Focus on recovery of specific materials including food waste, metals, paper/cardboard, plastics, and wood.
- Community education and awareness through widespread public place recycling infrastructure and zero-waste teaching in schools.
- Development of recycled product standards and markets.
- Industry development through funding support for local technologies and infrastructure.

- Resource efficiency through local reuse or recycling of secondary resources, and energy recovery from residual waste and Refuse Derived Fuel.

The broad vision is for all citizens and businesses to be aware of and contribute to improved resource recovery and local economic growth and value, rather than waste, potential resources.

Incentives and Barriers for Increased Resource Recovery

State and national waste policies and the strategies are among the principal drivers of the uptake of resource recovery infrastructure and the diversion of waste from landfill over the last decade. Landfill levies, for instance, are intended to provide a financial incentive for waste generators and contractors to embrace recycling solutions over landfill.

The market signal provided by the NSW waste disposal levy and the Federal Carbon Pricing Mechanism, together with landfill gate pricing has lifted the overall landfill gate price for mixed waste to around $300/tonne. This approaches the aggregate gate pricing for mixed waste AWT processing and landfill disposal of process residuals. Note that that waste disposal levy and carbon price both apply to AWT residues.

Numerous other issues form barriers to increased resource recovery. Distance from recovery facilities to materials markets, for instance, is an important factor limiting cost-effective recycling. Progress is being made in devising initiatives for local recovery and use of materials, such as inclusion of glass in roadways and paths.

While not always strictly classified as recycling, such initiatives can result in productive uses of materials which might otherwise be discarded. A related issue is the need for scale-economy for sophisticated, expensive infrastructure such as AWT and thermal technologies. This issue brings into focus the benefits of regional collaboration for sustainable waste management.

A further barrier to increased resource recovery is the difficulty of gaining planning approval for waste resource recovery infrastructure in urban and industrial settings.

Summary of Australian and International Policy and Market Trends

The various emerging policy positions and market trends can be distilled to just a few ideas that have been instrumental in driving improved waste management in Europe, Scandinavia and Australia over the last decade (as examples). Broad ambitions for increased conservation of resources and improved environment protection set the agenda. The strategy being played out is based on two main themes:

- maximising source separation and recycling of dry, recyclable materials so that these never enter the residual waste stream; and
- reducing the amount of biodegradable waste sent direct to landfill without some form of treatment to protect the environment.

These drivers and strategic themes, together with the associated policy responses and local actions are set out diagrammatically at Table 3-1 below.

Table 3-1 Broad Policies and Trends in International and Australian Waste Management

Broad national and international objectives	Broad national and international strategy	Public policy responses	Local strategy responses
Increased conservation of resources and improved environment protection			
	Maximum source separation and recycling of dry materials such as plastics, metals, paper, wood, etc	- Improve kerbside recycling yield - Improve public place recycling yield - Improve business recycling yield - Product stewardship legislation	- Education and improved collection methods - Mandatory public place recycling opportunities - Increased landfill charges to drive source separation - Producer responsibility actions
	Reduce impacts of direct disposal of biodegradable waste to landfill	- Bans on direct disposal without prior treatment - Waste disposal levies - Carbon pricing	- AWT processing of organics (food & garden and mixed wastes) - Garden waste collection and processing - Increased landfill management requirements

Market and Technology Performance and Trends

Waste Processing Technology Applications

This section reviews available technologies available in Australia. It is not an attempt to document each and every facility, but to describe a representative sample of the technologies, costs, benefits, risks and operating experience in the Australian context.

There is no *silver bullet* for waste processing to provide solutions for all waste management issues. Each processing technology has its own performance characteristics, environmental and social considerations and end products which must be sold to market. Each technology requires a different and specific feedstock waste stream. As a consequence, any discussion of technology should also cover the input waste streams and the output products. The two typical waste streams considered for processing are:

- source separated organics; and
- mixed residual waste.

Source Separated Organics Streams

Source separated streams arrive at the given processing technology in a clean stream, with prior sorting having been done by the householder or the company that generated the waste. The primary streams for the purposes of this review are food waste, garden waste, and mixed food and garden waste streams from households or businesses.

The highest rates of recovery and the lowest contamination rates are achieved through source separated systems.

In the past five years private waste contractors have commenced extensive training and education programs with waste generators to ensure that source separation schemes operate effectively. Without such education and training the separation may be less than adequate, resulting in contaminated waste streams.

Mixed Residual Streams

The combined garbage stream set out in the household red topped waste bin is usually referred to as mixed residual waste. This heterogeneous waste stream is complex and requires particularly robust technologies for the initial sorting stage to separate the constituents for the second stage of processing.

Typical approaches to processing these domestic mixed waste streams involve homogenisation and sorting process steps. Facilities with some of these systems include:

- Mechanical separation – SAWT Liverpool line sorting, SITA Sydney;
- Drum separation and homogenisation – Mindarie WA and Bedminster at Cairns and Port Stephens;
- Mechanical separation and autoclave – Biomass Solutions, Coffs Harbour.

During the mechanical sorting phase, particular materials are either recovered from the material stream for recycling or removed and classified as residue for disposal. The most common materials separated for recovery in this way include glass, steel, aluminium and plastics.

Some Treatment Options

Some of the technologies used for processing domestic waste include:

- landfill – conventional, bioreactor;
- mechanical sorting – for kerbside recycling;
- mechanical-biological Treatment (MBT);
- aerobic composting – windrow, static pile, enclosed tunnel, vertical tower;
- anaerobic digestion – wet AD, dry AD;
- thermal processing – incineration, pyrolysis, gasification, plasma arc.

Each of these technologies has a unique cost, input/output, and risk profile. The following notes summarise the technologies particularly as experienced in the Australian context. The relationship between the various technologies is shown diagrammatically at Figure 3-1.

Figure 1: Treatment options and mix - Australian experience

Conventional Landfill

Approximately 21 million tonnes of waste is sent to landfill each year. Landfills in Australia range in scale from local wayside rural tips to managed facilities receiving a million tonnes/year. Most new landfills involve clay or synthetic liners to minimise external impacts from leachate and gas.

The quality and operating standards of landfills is extremely variable. The Waste Management Association of Australia estimates there are some 650 licensed and operating landfills in Australia[6] (excluding local tips). Of these, 90% do not capture the methane gas.

Across Australia landfills produce more than 15 million tonnes of CO_2e via landfill gas (mostly methane) of which some 11 million tonnes of CO_2e escapes to the atmosphere as greenhouse gases. Only around 29% of landfill gas is captured[7].

Bioreactor Landfill

Bioreactor landfills involve the recirculation of leachate in order to facilitate the rapid decomposition of organic matter via methanogenic bacteria within the landfill voids. Methanogenic bacteria require anaerobic conditions (the absence of oxygen) to flourish. The acceleration of methanogenic processes increases the rate of landfill gas generation which can be captured for energy in the form of electricity and heat. It also accelerates the rate of material decomposition and stabilisation of the landfill, allowing for earlier decommissioning of the gas capture system and re-use of the closed sites.

Aerobic Windrow Composting

Aerobic composting involves the use of microbial decomposition of organic waste in the presence of air. Input materials generally include green waste, grease trap waste, sludges, commercial organic material and biosolids. Windrow composting does not involve any odour capture or treatment. As a result, open windrow facilities used to process food waste, sludges and biosolids are usually isolated from adjoining properties as these processes can be odorous.

In the compost piles, microbes progressively break down the organic material in the presence of oxygen creating heat and releasing nutrients. Oxygen levels are maintained by use of compost turning to keep the heap aerated. Moisture is also required and most windrows have some sort of sprinkler system.

Windrow composting generally takes 8-20 weeks. The organic matter is heated to above $5^{O}C$ to ensure pathogen and seed kill. Windrow composting is the simplest and most widely practiced composting system in Australia. More than 3 million tonnes of organic material are processed in this way each year.

Aerated Static Pile Composting

There are only a few static pile composting facilities in Australia. They involve placing the organic material (food, garden waste, biosolids, sludges, etc.) onto an aerated floor in a

[6] WMAA Landfill Division, Landfill Audit 2009.
[7] Australian Government. *National Waste Report* . 2010.

biocell. Air is then sucked through the compost to encourage microbial activity. Temperature is controlled by the rate of air movement through the compost. Because air is being drawn through the material there is no need for turning of the waste.

Process air is then passed through a biofilter or other odour controlling system before being discharged back to the atmosphere. Once the significant biological processes are completed (usually around six weeks) air can be blown through the waste direct to atmosphere without creating significant odour risks.

One of the largest static pile systems in Australia is the Biowise facility in Perth. It has four biocells in total, capable of processing 30,000 tonnes of mixed organic wastes including biosolids, grease trap waste, and garden waste. Once the active composting phase is completed the compost is matured in normal windrow piles for a further 4-8 weeks to ensure full maturation and stability. The material is then screened and blended with other materials to create fit for purpose products for sale.

Enclosed Tunnel Composting

The most common odour controlled composting systems, and the benchmarks for operations in Australia, are fully enclosed tunnel composting facilities. These facilities are equipped with odour and process controls, and are the system of choice for most new facilities in Australia.

Recent tunnel composting plants include the SAWT facility in Sydney with 28 tunnels, the Mindarie tunnel system, NRG in Melbourne, Remondis at Port Macquarie and J R Richards at Clarence Valley and Orange. Enclosed tunnel composting is an aerobic process with air flow in the tunnels under pressure (usually pumped through a perforated floor and up through the pile, or sucked down through the pile and a perforated floor). Temperature and moisture are also controlled.

The residence time in a tunnel can be as short as 3 weeks but 6-8 weeks is common to ensure pathogen and seed kill. Most plants utilise computerised systems to control moisture, temperature and oxygen levels. Once the first phase composting is completed the product is matured, screened and where appropriate blended to create fit for purpose products.

The Remondis plant and the Kemps Creek SAWT process clean source separated organic waste streams including food, garden waste, biosolids and grease trap waste. These produce high grade AS4454 compliant composts for an unrestricted market.

The Mindarie and SAWT Liverpool process mixed residual MSW wastes and thus produce a lower grade compost which is used in a more restricted market application (mine site rehabilitation, forestry, limited agriculture and landfill remediation).

Covered Aerobic Composting

Transpacific Industries (Cleanaway) has commercialised an aerobic technology known as the GORE system. The technology can be scaled-up to 150,000t/annum and involves traditional windrow composting methodologies situated under a purpose-designed Gortex cover system that manages both internal conditions and the escape of odours and leachate from the windrows.

Anaerobic Digestion

Commercial anaerobic digestion facilities are operating using MSW and source separated waste streams as feedstock in Europe, North America and Asia. The most successful anaerobic plants use homogenous feed stocks such as sewage sludge or animal manure. Anaerobic digestion of sewerage sludge has been common practice for 30 years.

Wet anaerobic digestion has been developed to process source separated organic waste streams to produce methane-rich gas for conversion to electricity and heat. Input streams are usually food, sludges and biosolids. The anaerobic digestion process takes place in a large reactor vessel or digester which is purpose built to enable methanogenic bacteria to process the organic lignocellulosic wastes in a water-saturated processing environment.

Dry anaerobic digestion has been developed to process both source separated organic waste streams and MSW to produce methane-rich gas for conversion to electricity, and residual digestate for compost or incineration. These dry AD systems involve the same anaerobic chemistry as the wet AD systems without the water-saturated environment.

The digestion process takes around 15-25 days and results in methane production and a residual digestate pulp which can be subsequently composted or incinerated.

Anaerobic digestion was introduced to Australia for the processing of clean stream organic wastes including sewage, biosolids and sludges. It is a commonly used system for the processing of food waste in Europe.

- The first commercial scale plant used to process mixed waste streams in Australia, was the Atlas facility in Perth. The digester was closed after several months of sporadic operation.
- The EarthPower facility in Sydney processes source separated food wastes and other organic sludges. Following early failure resulting from high levels of input contamination the facility has been acquired redeveloped, and operated by a joint venture of Veolia Environmental Services and Transpacific Industries.
- Two anaerobic digesters were operating on mixed residual household waste at the UR3R plant at Eastern Creek and the (former) WSN ArrowBio plant at Jacks Gully. The digestion systems for both plants have now been decommissioned.

Refuse Derived Fuel (RDF)

RDF, also known as Process Engineered Fuel, involves the pre-treating waste and manufacturing a relatively easily handled, high calorific fraction suitable for combustion. The pre-treatment phase helps homogenise the waste and allows for removal of materials suitable for recycling, along with wet organic materials such as food and garden wastes for separate treatment. The remaining combustible fraction (consisting of paper, card, plastic film, etc) may then either be burnt directly as a coarse flock, or compressed into dense pellets for sale as a supplement fuel in industrial boilers.

RDF is not commonly used in Australia at this time, however the SITA-ResourceCo facility in Adelaide is one example of this technology in operation where some 80,000 tonnes per annum of fuel is manufactured representing a 10% fuel substitution in the cement kilns of Adelaide Brighton Cement.

Infrastructure and Technology Procurement

Indicative Costs for AWT in NSW

In the initial days of AWT processing of waste, scant consideration was given to issues of waste variability and product refining. The mixed waste processing plants and the source separated organics composting plants were priced by the market with only basic regard for the need for:

- custom design of facilities;
- waste stream-specific process operations;
- product-specific refinement processing; and
- management of residual waste prior to landfill disposal.

History has shown that AWT processing of waste, and especially mixed wastes, to manufacture market-specific products, is orders of magnitude more complex than disposing of wastes in landfill. Therefore, it stands to reason that the pricing of AWT facilities and the gate fees for processing must be more project-specific.

Until early 2008 the cost for waste processing plants and the gate fee for processing were reasonably consistent and reasonably predictable. As recently as the 2009 report on the supply and demand of landfill capacity for metropolitan Sydney[8], there was an expectation that landfill gate fees would exceed mixed waste AWT gate fees sometime around 2015-16. However, the global economic crisis, the legislated increase in S.88 Waste Disposal Levy, technology performance uncertainties and the 3F Gateway Exemption requirements have all

[8] Wright, *Public Review – Landfill Capacity and Demand,* March 2009. NSW Department of Planning.

collided to adversely impact both facility capital costs and processing gate fees and lead to considerable uncertainty in the market.

At the time of writing, at least two tenders relating to AWT processing of wastes in NSW have been discontinued, another has been extended and delayed several months and one other, involving a selected preferred tenderer, has seen that party withdrawing from their position three years after being selected – all primarily due to uncertainties relating to long term pricing, project and technology risks, output product quality requirements, and financing risks. The various uncertainties have led to demands by developers for increased risk margins. The outcome is that gate fees for new projects substantially exceed those applying prior to 2008. Indeed, some local government clients have reported approaches from their AWT contractors aimed at increasing gate fees over those that were tendered and accepted a few years earlier.

With such market uncertainties, the capital cost and gate fee arrangements for future contract pricing will be very specific to the circumstances of project, risk allocation between the parties and key aspects of contract arrangements. In addition, the market tends to factor in an assessment of the alternative costs a client might face if the new facility is not brought online, which again is a very project-specific variable. On this basis, cost comparisons and reviews of historical costs can be misleading. Accordingly, independent advice on likely capital costs and gate fees is considered essential in avoiding tender price surprises.

Treatment Technology Procurement Options

The heightened market uncertainty has led to changes in the approach to procurement planning emerging in the AWT market, especially in NSW. In particular, the previous approach in which the contractor takes all risk appears to be giving way to increased risk-sharing and collaboration between contractors and clients. Early engagement with potential tenderers is a now common in various types of public/private projects and extensive preliminary planning by the client has become essential in sharpening requirements. The emerging approach to procurement will see the need for more careful consideration and planning for procurement issues including:

- Pre-tender negotiations with multiple parties to clarify objectives.
- Pre-tender provision and analysis of data (e.g. waste composition and quantities) and information that will inform the procurement process and tenderers.
- Opportunity for pre-tender discovery that intending tenderers should be afforded to adequately inform themselves of the environment and circumstances surrounding the procurement.

- Careful linking of up-stream waste feedstock (collection) and down-stream product/market requirements to ensure integration of output product demand with waste inputs and that the technologies and services selected have appropriate capabilities to meet end-product specification.
- Design life of the facilities, the post-contract arrangements for the client to assume ownership/operation rights and the post-contract re-build retrofit requirements to suit the next phase of life for the facilities.
- Structured allocation of contract risks between the parties, and procurement arrangements that better reflect the preferred risk sharing in lieu of the expensive alternative of contractor taking all risk.
- The structure of tenders and performance specifications to attract quality bids aligned with procurement objectives.
- The newly heightened scrutiny and analysis of (previously undisclosed) tender assumptions and financial modelling as part of the tender assessment process.
- The significance of technical content over legal content in procurement documentation to provide contractual terms and mechanisms that can accommodate significant issues during the contract term such as:
    - performance management;
    - management of variations and amendments;
    - major facility upgrades or add-ons during the term;
    - significant shifts in financial markets;
    - changes over time of waste quantities and composition; and
    - end of contract hand-over arrangements.

Planning and delivering the procurement of waste management services and infrastructure is a very complex and lengthy process. Given the financial and reputation risks involved in poor decision-making, a careful, structured and adequately resourced approach is essential.

4. REGIONAL AMBITIONS AND STRATEGIC DIRECTION

This Chapter describes the ambition of the SCG for future regional collaboration, and the strategic profile or themes planned to bring about better regional outcomes in waste management and resource recovery.

Keys aspects addressed in preparing this *Regional Waste Avoidance and Recovery Strategy* are:

- Recognition that each SCG member Council has its own over-riding waste strategy.
- Scope for Councils to work collaboratively where appropriate in the interest of regional advancement, while separately implementing their own approved Council Waste Strategy.
- Opportunities for collaboration to address whole-of-region waste management and resource recovery issues and planning, and scope to jointly deliver waste infrastructure and services – particularly with potential for co-funding grants available through the NSW *Waste Less, Recycle More* initiative.

The Regional Waste Strategy is based on pursuit of the most cost-effective waste management arrangements across the region, and joint development of substantive, potentially region-wide options for better outcomes – for reduced costs, improved resource recovery, increased flexibility, and better service provision. With these ideas in mind, the strategy addresses proposals for infrastructure and systems to bring about improved recycling and take appropriate advantage of scale efficiencies.

Principles for Regional Collaboration

The SCG member Councils are committed to continued collaboration for improved waste management planning and service delivery.

Councils in the Region will:

a) collaborate to lead the region toward sustainable waste avoidance and resource recovery using appropriate technologies and practices;

b) collaborate to support community-wide action in managing cross-regional issues such as litter, illegal dumping and safe stewardship of problem wastes;

c) collaborate to use their collective buying power where feasible to secure the most cost-effective waste management and resource recovery contract terms;

d) collaborate to establish and operate waste infrastructure and facilities, where it is cost-effective and feasible to do so, in delivering regional waste services.

Themes Adopted in Waste Strategy Framework

The following Strategic Themes and Initiatives provide the framework for the plan and the basis for Regional Initiatives described in detail at Chapter 5. Action Plans for each Regional Initiative are set out at Chapter 6.

The Strategic Themes are consistent with the NSW draft *Waste Avoidance and Resource Recovery Strategy 2013-21*. The updated WARR Strategy retains the general direction for action to conserve resources and minimise harm to the environment. The strategic direction and diversion targets imply progress toward a position in which most waste is treated to yield beneficial products or reduce pollution impacts. The waste policy framework strategy promises continued program support for Local Government through the NSW *Waste Less, Recycle More* initiative; this is underpinned by a relatively high and mounting levy on waste disposal to landfill – providing an improving financial incentive for resource recovery.

Theme 1. Avoid and reduce waste generation

The progressive increase in waste generated over many years is generally regarded as a function of both population increase and economic conditions. The growth rate of municipal sector waste generation is generally regarded as a function of three main influences: population increase, product quality, and economic conditions. Initiatives for *waste avoidance* (waste not created or discarded thanks to initiatives such as product reuse, improved product life, product/package light-weighting and using products and materials more efficiently) appear to have made an impact in recent years. This has resulted in a small reduction in waste generated, despite increasing population and positive economic conditions.

This Theme seeks to build on broad state-wide initiatives to reduce the rate of waste generation.

Initiative 1a. Guide the community in reducing food waste

SCG and member Councils will work with the EPA to develop a follow-up program to build on the previous NSW Government *Love Food, Hate Waste* promotion.

Initiative 1b. Promote home composting

SCG and member Councils will prepare and promote home composting as a contribution to conserving landfill capacity and creating beneficial materials.

Initiative 1c. Promote reuse of discarded products in association with development of drop-off centres

In association with Theme 3 (Increase community reuse and recycling and improve problem waste collection) promote reuse of unwanted, used products to reduce entry of potentially reusable materials to the waste stream.

Theme 2. Increase recycling

The draft WARR Strategy sets a target of 70% municipal recycling; a 19 percentage point increase on the current average regional recycling level. With garden waste recovery and processing already in place, the next logical step in the recycling is to focus on the red residual waste bin. These garbage bins contain a high proportion of food waste and other valuable recyclable materials, some of which could have been discarded to the kerbside recycling bin.

This Theme describes regional initiative to complement established Local Council strategies.

Initiative 2. Develop waste processing facilities at Council, Sub-regional level or Regional level

SCG member Councils will progressively implement local AWT-based waste processing strategy for either food/garden waste or mixed waste. Where feasible and cost-effective, lead Councils may invite other Councils to participate, either on commercial terms or in joint venture, in local contract arrangements.

Initiative 3. Investigate the merit of a regional system to recover and recycle nappies and other absorbent hygiene products

SCG member Councils will jointly investigate development of regional collection and beneficial processing of nappies and absorbent hygiene products. This would reduce waste to landfill, reduce the contamination of source separated streams, and reduce odour complaints.

Initiative 4. Investigate the merit of establishing a regional commercial waste recycling facility

SCG member Councils currently receive and dispose of more than 100,000 tonnes of commercial waste each year. This consumes valuable landfill capacity which is difficult and costly to replace. The waste comprises cardboard, timber, metals, plastics and food, all of which are potentially valuable recycling materials. SCG and member Councils will jointly investigate the merit of establishing a regional commercial (C&I) waste materials recovery facility (MRF). The MRF would receive, recover and divert from landfill dry C&I waste loads. Landfill gate pricing could be set to provide a financial incentive for delivery of waste loads

free of food. Gate pricing could also be set to make attractive waste streaming at source in order to minimise material separation requirements at MRF.

Initiative 5. Consider processing residual waste as a long-term option Regional or Sub-regional

SCG member Councils will jointly investigate the merit of a longer-term plan for centralised AWT processing of organic-depleted residual (red bin) waste (assuming a general move to processing of domestic food/garden waste). This would ensure a critical mass of feedstock to make the scheme viable and further reduce waste to landfill.

Theme 3. Increase community reuse and recycling and improve problem waste collection

Community drop-off centres in convenient locations can be used to collect low level toxic wastes including paint, batteries, smoke alarms etc; recyclables materials such as e-waste, paper/cardboard, beverage containers, and metals; and some products suitable for reuse.

Most regional Councils across NSW already operate facilities equipped to receive these sorts of wastes. The community drop-off centre concept now embraced by the EPA draws on the success of smartly-designed, easily accessible facilities available in Germany and some parts of the UK. The EPA has further developed the idea and is counting on uniform branding and accessibility to generate patronage.

Initiative 6. Establish Drop-off Centres to collect reuse products, recycling materials, and problem wastes

SCG member Councils will collaborate or individually request funding under the NSW *Waste Less, Recycle More* initiative to establish or upgrade Drop-off Centres to collect low toxic household wastes and materials for reuse and recycling. The program could be supported with a regional education and engagement activity.

Theme 4. Reduce littering and increase public place recycling

SCG and Member Councils have prepared complimentary applications to draw on funding support to establish integrated litter reduction programs. The regional component focuses on *Community Education and Enforcement* activity. Council applications include *Litter Counts and Related Solutions, Bin Infrastructure,* and *Clean-up* activity.

An enlarged network of attractive public place waste and recycling bins throughout the region could contribute to both reduced litter and improved public place recycling opportunities.

Initiative 7. Upgrade and extend public place litter and recycling bin infrastructure, education and enforcement

SCG member Councils will collaborate to request funding under the NSW *Waste Less, Recycle More* initiative to upgrade public place litter and recycling infrastructure supported by regional education and engagement.

Theme 5. Reduce illegal dumping

A *Regional Illegal Dumping Prevention Strategy* has been prepared and a Regional Illegal Dumping Coordinator has been appointed to assist with the implementation of the strategy. In accordance with the Deed, all participating Councils are using the EPA data base to record illegal dumping incidents and monitor trends. A series of television advertisements has been aired across the region to raise community awareness of the problem, penalties for illegal dumping, and options for lawful disposal.

Initiative 8. Extend the regional Illegal Dumping Program with EPA funding

SCG and member Councils propose to extend the current Illegal Dumping Program and have requested funding under the NSW Government *Waste Less, Recycle More* Initiative.

Theme 6. Increase regional collaboration

With a Regional Coordinator recently appointed, the SCG secretariat already provides a regional coordination of nominated waste programs and a single point for development of region wide project funding applications. With further strengthening of capacity, the SCG secretariat could increase the strategic capability of the region and play a wider, more effective role in coordinating regional action for improved waste management and resource recovery.

Initiative 9. Strengthen the capacity the SCG secretariat to play a wider, more effective role in coordinating regional action on waste

a) SCG member Councils will jointly work toward progressively increased collaboration to deliver cost-effective waste programs for the region, and will consider opportunities for service collaboration.

b) SCG member Councils will continue to explore joint tendering processes, where beneficial, for waste-related services and infrastructure.

c) SCG member Councils will, where cost effective to do so, adopt a regional approach to community waste education across a common set of waste and waste related issues including but not limited to illegal dumping, litter, waste avoidance and recycling.

5. DEVELOPMENT OF REGIONAL STRATEGY

This Chapter presents detailed description and evaluation of strategic initiatives that underpin the Strategic Themes set out at Chapter 4. During the planning process an extensive schedule of waste management and resource recovery initiatives was established by the SCG Secretariat and Council waste management representatives. These opportunities were elaborated and subjected to initial assessment and screening by the SCG/Council group in a workshop setting.

Opportunities Evaluated

The following opportunities were subjected to the full evaluation based on their potential as productive SCG collaborative initiatives:

Initiative 1	-	Waste avoidance education
Initiative 2	-	Combined food and garden waste processing facilities at regional, sub-regional or Council level
Initiative 3	-	Regional collection and processing of nappies and absorbent hygiene products
Initiative 4	-	Regional C&I recycling facility
Initiative 5	-	Regional or sub-regional residual waste processing – long term option
Initiative 6	-	Drop-off centres for improved community recycling and household problem waste capture
Initiative 7	-	Upgrade and extend public place litter & recycling bin infrastructure, education and enforcement
Initiative 8	-	Extended program to reduce illegal waste dumping
Initiative 9	-	Strengthened regional policy, program and procurement capacity

Evaluation Procedure and Results

Short-listed options were evaluated using financial Cost/Benefit analysis prepared from the perspective of the SCG Councils operating in collaboration to undertake the initiatives described. The results of the analysis, summarised at Table 5-1 below, indicate that based on conservative assumptions and estimates, all initiatives other than one have a positive net present value. Similarly, all but one initiative have positive benefit/cost ratios.

Table 5-1. Summary of Cost/Benefit Evaluation Results

Initiative		Net Present Value (NPV)	Benefit/Cost Ratio	NPV Costs	NPV Benefits
1	Waste avoidance education	$0.07m	1.1/1.0	$0.70m	$0.77m
2a	Combined food and garden waste processing facilities at regional level	$87.75m	1.7/1.0	$126.93m	$214.68m
2b	Combined food and garden waste processing facilities at sub-regional or Council level	$16.18m	1.4/1.0	$37.49m	$53.67m
3	Regional collection and processing of nappies and absorbent hygiene products	-$0.95m	0.9/1.0	$8.10m	$7.15m
4	Regional C&I recycling facility	$31.79m	1.2/1.0	$137.94m	$169.73m
5	Regional or sub-regional residual waste processing – long term option	$8.91m	1.1/1.0	$167.23m	$176.14m
6	Drop-off centres for improved community recycling and problem waste capture	$18.24m	1.8/1.0	$21.88m	$40.12m
7	Upgrade and extend public place litter & recycling bin infrastructure, education and enforcement	$1.52m	1.1/1.0	$11.09m	$12.61m
8	Extended program to reduce illegal waste dumping	$0.4m	1.3/1.0	$1.44m	$1.84m
9	Strengthened regional policy, program and procurement capacity	$0.82m	1.8/1.0	$1.03m	$1.85m

Main Assumptions

The main assumptions and estimates are listed below and described more fully in the report:

a) General evaluation assumptions – these include the discount rate (7%), base year (2014/15), and evaluation period (5 to 15 years depending on initiative).

b) Cost assumptions – essentially incremental costs brought about by adopting the opportunity, including:
   - Initiative design and implementation
   - Capital and operating costs.

c) Benefit assumptions – essentially costs saved by SCG Councils by not proceeding with the Business as Usual Base Case.

INITIATIVE 1.
WASTE AVOIDANCE EDUCATION

Description

Many household activities involve purchasing and using products, and ultimately discarding the used product or its packaging and any residual material. By being more efficient about materials actually consumed and discarded, either for disposal or recycling, societies are able to reduce the vast amount of materials that require handling, transport, processing to recycle, or disposal to landfill. A topical example is the move to electronic newspapers in lieu of the printed and distributed version. The overall outcome is greatly reduced distribution costs, waste collection costs and recycling costs (most used newspapers are recycled).

So powerful is this *materials efficiency* concept that waste avoidance is at the top of the waste hierarchy used by Australian and most international jurisdictions. The progressive increase in waste generated over many years is generally regarded as a function of three main influences: population increase, product quality, and economic conditions. The growth rate of waste generation has generally been higher than average population growth. The NSW WARR Strategy has adopted the goal to "...improve the efficient use of materials across the community and avoid generating unnecessary waste".

Is it possible for SCG and member Councils to contribute at a local level to waste avoidance? The EPA suggests that education and behaviour change are fundamental to waste avoidance. The recent *Love Food, Hate Waste* campaign was aimed at helping people to make wise food purchasing decisions, to meet short-term needs and minimise spoilage, and making use of the left-overs rather than discarding them.

The Initiative proposed has three main parts:

Guide the community in reducing food waste. SCG and member Councils will work with the EPA to develop a follow-up program to build on the previous NSW Government *Love Food, Hate Waste* promotion.

Promote home composting. SCG and member Councils will prepare and promote home composting as a contribution to conserving landfill capacity and creating beneficial materials.

Promote reuse of discarded products in association with development of drop-off centres. In association with Theme 3 (Increase community reuse and recycling and improve problem waste collection) promote reuse of unwanted, used products to reduce entry of potentially reusable materials to the waste stream.

Expected operating outcomes:

Regional collaboration through the SCG framework for an education and behaviour change program to improve community understanding about materials efficiency and waste avoidance.

Advantages of a regional approach:

A regional waste avoidance education program can reduce costs to each SCG member to deliver activities expected as part of the NSW WARR Strategy.

Potential benefits and merits:

- Potential for reduced Council campaign costs and communications improvements.
- Improved application of scarce expert resources to regional issues.

Potential costs and drawbacks:

- Increased Secretariat costs, potentially funded from external sources.

Strategic fit as a regional initiative:

- Highly relevant initiative given the existing cohesion of the region.

Potential risks:

Preliminary scan suggests two fundamental risk issues:

- Ability to measure outcomes of the program; and
- governance of the program in the interests of each member Council.

This indicates a number of potential primary risk sources:

- continuing interest and input by each Council;
- suitability of governance design and ongoing administration.

BCA Results:

This initiative can bring substantial unquantified benefits that would flow to Councils. The initiative can also assist in cost control during period of increased financial management pressure and administrative reform.

- Net present value: $0.82 million.
- Benefit/cost ratio: 1.8/1.0.
- NPV of costs: $1.03 million.
- NPV of benefits: $1.85 million.

BCA Input Data:

Costs	**Basis**	**Amount**
Regional education officer	1 x $85,000/yr x 60%	$51,000/yr
Media and education material		$100,000/yr
Motor vehicle costs		$20,000/yr
Benefits		
EPA grant funding	Local government Waste and Resource Recovery Program	$100,000/yr
Council funding		$13,000/yr
Potential for reduced Council waste operating costs and service improvements	Say	$50,000/yr
Improved application of scarce expert resources to regional issues	Say	$25,000/yr
Project period		
Base year	2014/15	
End year	2018/19	

INITIATIVE 2.
COMBINED FOOD AND GARDEN WASTE PROCESSING FACILITIES AT COUNCIL, SUB-REGIONAL OR REGIONAL LEVEL

Description

The SCG member Councils are conscious that some further form of waste processing using AWT technology will be necessary in order to meet NSW recycling targets and avoid increasing waste disposal levy costs. Councils are at differing levels of progress in their planning or uptake of AWT: Wingecarribee already participates in an established waste processing contract; some SCG Councils are well advanced in preparing to tender for AWT food/garden waste processing; and others are weighing-up AWT options in the context of their own particular circumstances.

SCG commissioned a study in 2009 to consider the relative merits of various types of AWT schemes operated in both regional arrangement and on a single Council basis. This study concluded that a Council-specific arrangement was best for the region. Continuation of this Council-specific approach has merit because it enables each Council to design its primary AWT process in accordance with the needs of its own residents. On the other hand, if most Councils opt for food/garden waste processing, as seems likely and is advocated by the EPA, then the options of a joint regional or sub-regional approach warrants testing as it would provide a critical mass of food and garden waste to improve financial viability.

It should be recognised that not all households will participate fully in a food (and garden) waste collection service. Some households will choose to recycle all their food waste, and their residual waste bins will be completely free of food waste; others may choose not to participate at all. Considerable community engagement will be required to build food waste capture to 50% of available discards; this would be around 30,000 tonnes/year of food waste.

With food waste covered, domestic, red-bin waste could simply be sent to landfill. However, continuing waste levy increases and a future possible reintroduction of carbon pricing, suggest that some form of treatment may be appropriate in the medium term for residual waste. A joint regional or sub-regional arrangement for AWT processing of residual waste is evaluated at Initiative 3 because this would provide the critical mass of waste to secure processing at reasonable cost.

Expected operating outcomes:

Collected food and garden waste would be transported to a mixed waste composting facility. The main aims in this processing action would be production of high quality compost suitable for sale to the local community at reasonable prices.

Advantages of a regional approach:

A regional or sub-regional contract may provide the scale economics to make this approach more affordable than a single-Council approach.

Potential benefits and merits:

- Reduced waste levy and carbon price applied to organic waste.
- Potential to reduce and control environment risk.

Potential costs and drawbacks:

- Set-up cost and long term contract required.
- A full regional scheme would necessarily require bulk transfer of significant quantities of food/garden waste resulting in additional costs. This could be overcome by adopting a sub-regional or individual Council based approach.

Strategic fit as a regional initiative:

- Relevant, resilient infrastructure to increase recycling yield, reduce waste levy and carbon price liability, and conserve landfill space over a 10-15 year timeframe.

Potential risks:

Preliminary scan suggests two fundamental risk issues:

- Reasonably high start-up cost in order to build high participation rate; and
- possibly difficult tariff negotiation between Councils.

This indicates a number of potential primary risk sources:

- need to clarify purpose and analyse comparative option costs;
- resilient agreement on cost sharing formulae;
- potential for some households to revert to discarding food waste to residual bin;
- challenge of finding suitable site.

BCA Results:

Commercially self-sustaining initiative, particularly if waste levy escalation is continued post-2016 and carbon pricing is reintroduced.

BCA results as a full regional initiative:

- Net present value: $87.75 million.
- Benefit/cost ratio: 1.7/1.0.
- NPV of costs: $126.93 million.
- NPV of benefits: $214.68 million.

BCA results as a sub-regional or individual Council initiative:

- Net present value: $16.18 million.
- Benefit/cost ratio: 1.4/1.0.
- NPV of costs: $37.49 million.
- NPV of benefits: $53.67 million.

BCA Input Data:

Project delivery assumption: assumed that the project is delivered on a Build, Own, Operate, Transfer basis with the plant sited on Council land and lease costs included in process contract costs. If one Council provides a site and hosts the facility, then commercial lease costs would be shared between the partnering Councils.

Project term is 15 years.

Waste Flows	**Basis**	**Amount**
Potentially available regional food waste	0.5 x 110,000 tonnes/yr domestic residual waste	55,000 tonnes/yr
Potentially available regional garden waste	Kerbside and drop-off garden waste	60,000 tonnes/yr
Assumed regional food waste capture	Around 50-55% food waste capture allowing for non-participants and part contributors	~30,000 tonnes/yr
Assumed regional garden waste capture	Around 80-85% allowing for drop-off to outlying depots	~50,000 tonnes/yr
Food & garden waste (green bin) regional collection	Total of food and garden waste captured	80,000 tonnes/yr
Sub-regional option	Total of food and garden waste captured	20,000 tonnes/yr
Costs		
Program planning and procurement – full regional option		$500,000 one-off
Program planning and procurement – sub-regional option		$250,000 one-off
Community education and engagement costs	1 EFT x $70,000/year in year 1; then included as part of waste processing contract Plus materials and media	$70,000 one-off $50,000
Increased collection costs	Nil: residual moves to fortnightly collection replacing garden waste collection; food/garden collected weekly replacing current residual waste collection	$0

Food/garden waste transfer cost for inclusion only in the full regional option	50% of total x $25/tonne = 40,000/yr x $25	$1.0m/yr
Food/garden waste processing cost– full regional option	30,000 + 50,000 = 80,000 tonnes x $200/tonne	$16.0m/yr
Food/garden waste processing cost – sub-regional option	20,000 tonnes x $250/tonne	$5.0m/yr
Benefits		
Increased recycling revenue	Nil, compost product owned by contractor	
Garden waste mulching and handling cost saved	50,000 tonnes x $50/tonne	$2.5m/yr
Landfilling costs saved	80,000 tonnes x $300/tonne (2013/14) increasing to $330/tonne by 2016/17	$24.0m/yr to $26.4m/yr
Improved amenity	No monetary valuation applied	
Project period		
Base year, planning and procurement	2014/15	
Infrastructure approvals and development	2015/16 to 2017/18	
Commissioning	2018	
End year	2032/33	

INITIATIVE 3. REGIONAL COLLECTION AND PROCESSING OF NAPPIES AND ABSORBENT HYGIENE PRODUCTS

Description

A regional food and garden waste processing contract was considered by the member Councils; it was determined that the technology could be simple and inexpensive enough to be pursued at a sub-regional or even a Council level. The councils considered nappies to be an area where the benefits of regional collaboration would be more obvious.

Nappies constitute approximately 6%[9] of the residual waste stream and are a constant source of contamination of both recyclables and organics streams. Absorbent hygiene products (AHPs) including disposable nappies, adult incontinence products and feminine hygiene products constitute a greater percentage than the nappies alone.

Development of a collection and processing system at a regional level would enable each council to:

- reduce the frequency of the general waste bins without the associated odour and maggot complaints;
- reduce the contamination of the source separated streams;
- provide a nutrient rich product to sell to market; and
- reduce waste to landfill.

The service could be offered to residents with babies in nappies and elderly residents using incontinence products. Commercial sanitary waste collectors could recycle their material at the plant at a lower cost than landfill disposal. Waste delivered by commercial contractors serving nursing and care homes can make up a large part of the infeed.

It should be recognised that not all households with babies or elderly residents using incontinence products will participate in the collection service. Considerable community engagement will be required to capture 50%-55% of the available materials; this would be around 2,800 tonnes/year of nappy waste. To process the material into suitable compost, 50% by volume of garden waste is required.

Expected operating outcomes:

Residents generating high volumes of AHPs would be able to apply for a 40L bin which would be collected weekly. Collected AHPs would be transported to a composting facility, possibly mixed with small quantity of garden waste and shredded. At the end of the

[9] In a Wollongong waste audit in 2009, 6.1% of the SUD and 2.4% in MUD general waste bin was nappies. In a Shellharbour audit in 2009 one sample of the general waste contained 5.1% and another 7.4% nappies.

composting process, the material would be sorted to remove the plastic waste, which would be washed, pelletised and sold. The main aims in this processing action would be production of high quality compost suitable for sale to the local community at reasonable prices.

Advantages of a regional approach:

A regional contract may provide the scale economics to make this approach more affordable than a single-Council approach.

Potential benefits and merits:

- Reduced waste levy and carbon price applied to waste.
- Potential to reduce and control environment risk.

Potential costs and drawbacks:

- Collection contract required.
- Processing contract required.

Strategic fit as a regional initiative:

- Relevant, resilient infrastructure to increase recycling yield, reduce waste levy and carbon price liability, and conserve landfill space over a 10-15 year timeframe.

Potential risks:

Preliminary scan suggests two fundamental risk issues:

- Reasonably high start-up cost in order to build high participation rate; and
- possibly difficult tariff negotiation between Councils.

This indicates a number of potential primary risk sources:

- need to clarify purpose and analyse comparative option costs;
- resilient agreement on cost sharing formulae;
- potential for low take-up of the service;
- challenge of finding suitable site; a contractor responsibility.

BCA Results:

Service is not commercially self-sustaining and would require an increased domestic waste charge or subsidy by Councils.

- Net present value: -$0.95 million.
- Benefit/cost ratio: 0.9/1.0.

- NPV of costs: $8.10 million.
- NPV of benefits: $7.15 million.

BCA Input Data:

Project delivery assumption: assumed that the project is delivered on a Build, Own, Operate, Transfer basis with the plant sited on Council land and lease costs included in process contract costs. If one Council provides a site and hosts the facility, then commercial lease costs would be shared between the partnering Councils.

Project term is 10 years.

Waste Flows	**Basis**	**Amount**
Potentially available Regional AHP waste	0.06 x 84,700 tonnes/yr domestic kerbside residual waste	5,100 tonnes/yr
Assumed AHP capture	Around 55% AHP capture allowing for non-participants and part contributors	~2,800 tonnes/yr
Assumed garden waste in-feed	Around 50%	~1,400 tonnes/yr
Costs		
Program planning and procurement		$50,000 one-off
Community education and engagement costs	0.5 EFT x $70,000/year in year 1; then included as part of waste processing contract	$35,000 one-off
	Plus materials and media	$30,000
Increased collection costs	Weekly collection in 40L bins: say 3% of 185,000 residential dwellings actually use the service ~13,000:	$0.721m/yr
	5,550 x $2.50/lift x 52 weeks/yr	
AHP processing cost	2,800 tonnes x $150/tonne	$560,000/yr
Benefits		
Increased recycling revenue	Nil, compost product owned by contractor	
Landfilling costs saved	2,800 tonnes x $330/tonne	$924,000/yr
Reduced contamination of kerbside recycling bins and garden waste bins	Say 10% of all nappies and AHP waste cause contamination and the cost of contamination removal is $200/tonne	$100,000/yr
	~500 tonnes/yr x $200/tonne	
Improved waste service quality	No monetary valuation applied	
Project period		
Base year, planning and procurement	2014/15	

Infrastructure approvals and development	2015/16 to 2016/17
Commissioning	2016/17
End year	2025/26

INITIATIVE 4.
REGIONAL COMMERCIAL WASTE RECYCLING FACILITY

Description

The NSW EPA has long pointed to the need for increased C&I recycling and has identified scope for increased recycling of paper/cardboard, plastics, metals and timber. Glass is also a candidate material. Around 80,000 tonnes of mixed C&I materials are disposed of annually in the Southern Region other than food waste.

The *Waste Less, Recycle More* initiative includes the *Waste and Recycling Infrastructure Fund* and the *Business Recycling Program*, based on the idea that infrastructure grants could stimulate recycling infrastructure projects. The SCG Councils could collaborate to develop a regional C&I resource recovery initiative. The focus of the program would be around dry C&I waste and the objectives would be to:

- maximise recovery and recycling of dry C&I waste that would otherwise be deposited in local landfills;
- avoid loss of gate revenue and establish the basis for ongoing revenue from sale of resources;
- provide local employment in a new venture.

The centre-piece of the program would be a C&I MRF at a central location. The MRF would be designed receive and recover dry mixed C&I waste loads as well as source-separated dry C&I loads. C&I loads containing putrescible material would not be accepted at the MRF and these mixed loads would continue to be directed straight to landfill.

This initiative could be accompanied by a regional policy for increased landfill gate pricing for mixed wet and dry C&I waste loads. This would provide a financial incentive for local businesses to stream their putrescible waste materials at the time the waste is generated. A premium gate price could also provide a financial incentive for waste contractors to plan front-lift collection routes to reduce the mixing of putrescible and dry waste in the same waste collection vehicle.

A recently announced EPA grant program - *Business Advisory Services Grants Program* - sets up arrangements for SMEs to receive a free-of-charge advisory and project management services to establish business waste source separation systems. Grantees for this program will include Local Councils and waste contractors. It is conceivable that a comprehensive C&I resource recovery scheme could be established and led by the Southern Councils Group.

Waste contractors would be encouraged, through MRF gate pricing pitched lower than landfill gate pricing, to take dry C&I waste loads to the MRF rather than one of the local landfills. Loads delivered to a landfill and comprising recoverable material would be

accepted at a premium price, consolidated, possibly with some collation to like materials, and transferred in bulk to the regional MRF.

Expected operating outcomes:

- Increased recycling of C&I business waste – potentially an additional 40,000 tonnes/year.
- Corresponding reduction in waste disposal to Southern Region Council landfills.
- Sale of recyclable materials to reprocessors (including paper/cardboard, plastics, metals, timber, and glass).
- Residuals from the sorting process would be sent to landfill in the short term, but in the longer term could be used to manufacture RDF.
- An increase in source-separated dry C&I waste loads received at the MRF (and at Council landfills) suitable for collation with post-MRF sorted materials without further processing.

Advantages of a regional approach:

C&I MRFs are capital intensive if resource recovery ambitions exceed the modest level achievable when sorting mixed loads using manual and small loader systems. But the mechanised MRF systems need substantive waste feedstock in order to be commercially viable. A regional approach is required to provide a critical mass of assured waste flow.

Potential benefits and merits:

- Increased landfill gate price revenue resulting from premium pricing of wet/dry C&I waste loads, and modest price increase for mixed dry C&I waste loads delivered to landfill.
- MRF gate revenue at least matching foregone landfill gate revenue and available to the program partners.
- Reduced waste to landfill.
- Recovery of recyclable materials for beneficial uses.
- Revenue from sale of recyclable materials to reprocessors, with potentially attractive prices resulting from regional consolidation.
- Potential future revenue from sale of RDF.

Potential costs and drawbacks:

- MRF upfront capital cost and operating costs.
- Reduced direct landfill gate revenue to Local Council partners (offset by new MRF gate revenue).

- Could block start-up of future private sector C&I MRF operators.
- Landfill operating costs incurred for MRF residuals.
- Potential modest cost increase to some businesses which are unwilling to separate waste materials.
- Potential minor cost increase to some waste collection contractors if it is necessary for them to modify their mixed waste collection routes (note that most contractors are already changing their collection practices).

Strategic fit as a regional initiative:

- Highly relevant, resilient infrastructure to increase recycling yield and conserve landfill space over a 10-15 year timeframe.

Potential risks:

Preliminary scan suggests two fundamental risk issues:

- delivery of intended resource recovery objectives; and
- commercial success and financial sustainability for member Councils.

This indicates a number of potential primary risk sources:

- availability of suitable Council owned land;
- program planning, design, and start-up governance;
- decisions on ownership and operation;
- continuity of waste flows;
- integrated gate pricing to maximise waste flows direct to MRF;
- stakeholder engagement – waste management sector and business waste generators.

BCA Results

This initiative can be commercially self-sustaining, especially with EPA grant funding, and could provide a valuable income source as waste derived fuels become acceptable.

- Net present value: $31.79 million.
- Benefit/cost ratio: 1.2/1.0.
- NPV of costs: $137.94 million.
- NPV of benefits: $169.73 million.

BCA Input Data

- Project delivery assumption: assumed that the project is delivered on a Build, Own, Operate, Transfer basis with the plant sited on Council land and lease costs included in process contract costs. If one Council provides a site and hosts the facility, then commercial lease costs would be shared between the partnering Councils.
- Gate fees assumption: MRF gate fee is collected by Council at waste facility weighbridge, and gate fee is $300/tonne for mixed dry C&I waste and $150/tonne for single-stream source separated dry C&I waste.
- Wet (putrescible) C&I waste is not addressed in this initiative.
- Project term 15 years.

Waste Flows	**Basis**	**Amount**
Potentially available Regional dry C&I waste given a region-wide dry C&I waste MRF processing service – with a focus on recovering paper/cardboard, plastics, metals timber and glass	Currently 80,000 tonnes/yr candidate C&I materials to disposal, some mixed with putrescible C&I waste Assume around 40,000 tonnes/year presented as mixed dry waste suitable as MRF feedstock Assume around 20,000 tonnes/year presented as dry source-separated, single stream waste suitable for collation/aggregation without MRF requirement	60,000 tonnes/yr dry C& I recyclable material and MRF feedstock
Costs		
Program planning and procurement		$100,000 one-off
Business education and engagement costs	0.5 EFT x $70,000/year in year 1; then included as part of waste processing contract	$35,000 one-off
Increased C&I sorting costs for business	Nil: assumed that source separation costs where applicable are offset by reduced gate fees	$0
Increased waste collection costs	Nil: collection contractors are already changing collection routes to avoid mixing wet and dry C&I waste	$0
Landfill gate fees foregone	60,000 tonnes x $130/tonne (free of levies and taxes)	$7.8m/yr
Dry C&I waste processing contract cost	60,000 tonnes x $110/tonne of all waste received	$6.6m/yr
Residue waste disposal cost (applies for first five years of operation)	Say 50% of 40,000 tonnes = 20,000 tonnes x $330/tonne	$6.6m/yr

RDF manufacturing contract cost from yr 9	20,000 tonnes/yr x $40/tonne	$800,000/yr
Residue waste disposal cost (applies for 10 yrs after first five years of operation)	Say 20% of 20,000 tonnes/yr = 4,000 tonnes x $330/tonne	$1.32m/yr
Benefits		
Gate price revenue	40,000 tonnes/yr x $300/tonne 20,000 tonnes/yr x $150/tonne	$16.2m/yr
EPA Business Advisory Grant	$250,000 over three years	$250,000
Increased recycling revenue	Nil, recyclate product owned by contractor	
Landfilling costs saved (assuming collected C&I waste would otherwise be sent to landfill)	60,000 tonnes/yr x $130/tonne (free of levies and taxes)	$7.8m/yr
Sale of RDF from year 6	Nil, RDF manufactured and owned by contractor	
Improved amenity	No monetary valuation applied	
Project period		
Base year, planning and procurement	2015/16	
Infrastructure approvals and development	2016/17	
Commissioning	2017/18	
End year	2032/33	

INITIATIVE 5.
JOINT REGIONAL OR SUB-REGIONAL RESIDUAL WASTE PROCESSING FACILITY

Description

The SCG member Councils are conscious that some further form of waste processing using AWT technology will be necessary in order to meet NSW recycling targets and avoid increasing waste disposal levy costs. Councils are at differing levels of progress in their planning or uptake of AWT: Wingecarribee already participates in an established waste processing contract; some SCG Councils are well advanced in preparing to tender for AWT food/garden waste processing; and others are weighing-up AWT options in the context of their particular own circumstances.

Continuation of this Council-specific approach has merit because it enables each Council to design its primary AWT process in accordance with the needs of its own residents. If most Councils opt for food/garden waste processing, as seems likely and is advocated by the EPA (see Initiative 11), then the options of whether to process or dispose of (organic-depleted) red bin residual waste will require attention.

It should be recognised that not all households will participate fully in a food (and garden) waste collection service. Some households will choose to recycle all their food waste, and their residual waste bins will be completely free of food waste; others may choose not to participate at all, leaving around 25,000 tonnes/year of food waste in residual waste bins.

Domestic, red-bin waste could simply be sent to landfill. However, with continuing waste levy increases and a future possible reintroduction of carbon pricing, some form of treatment may be appropriate in the medium term for this residual waste. A regional or sub-regional arrangement for AWT processing of residual waste would provide the critical mass of waste to secure processing at reasonable cost.

Expected operating outcomes:

Collected residual waste would be transported to a central mixed waste AWT facility. The main aims in this processing action could be all or some of:

- recovery of organic material for composing;
- recovery of recyclable metals and plastics;
- stabilisation of residues for disposal.

Advantages of a regional approach:

A regional contract may provide the scale economics to make this approach affordable. It is unlikely to be financially viable for an individual Council to invest in AWT processing of organic-depleted mixed residual waste.

Potential benefits and merits:

- Reduced waste levy and carbon price applied to residual waste.
- Scope for increased resource recovery and manufacture of waste derived fuel.
- Potential to reduce and control environment risk.

Potential costs and drawbacks:

- Set-up cost and long term contract required.
- A full regional scheme would necessarily require bulk transfer of significant quantities of residual waste resulting in additional costs. This could be overcome by adopting a sub-regional approach.

Strategic fit as a regional initiative:

- Relevant, resilient infrastructure to increase recycling yield, reduce waste levy and carbon price liability, and conserve landfill space over a 10-15 year timeframe.

Potential risks:

Preliminary scan suggests two fundamental risk issues:

- high cost potential if beneficial products are required; and
- possibly difficult tariff negotiation between Councils.

This indicates a number of potential primary risk sources:

- need to clarify purpose and analyse comparative option costs;
- resilient agreement on cost sharing formulae;
- potential for some households to revert to discarding food waste to residual bin;
- difficulty of finding suitable site.

BCA Results:

Can be commercially self-sustaining as a full regional initiative, particularly if waste levy escalation is continued post 2016 and carbon pricing is reintroduced.

- Net present value: $15.58 million.
- Benefit/cost ratio: 1.1/1.0.
- NPV of costs: $160.56 million.
- NPV of benefits: $176.14 million.

BCA Input Data:

Project delivery assumption: assumed that the project is delivered on a Build, Own, Operate, Transfer basis with the plant sited on Council land and lease costs included in

process contract costs. If one Council provides a site and hosts the facility, then commercial lease costs would be shared between the partnering Councils.

Project term is 15 years.

Waste Flows	**Basis**	**Amount**
Potentially available Regional residual waste given a region-wide food and garden waste collection and processing service	Currently 110,000 tonnes/yr domestic residual waste Around 30,000 tonnes/year transferred to the food & garden waste bin Therefore residual waste contents after food & garden waste collection: 110,000 – 30,000 tonnes/yr, including around 25,000 tonnes/yr of food waste	80,000 tonnes/yr
Costs		
Program planning and procurement		$500,000 one-off
Community education and engagement costs	0.5 EFT x $70,000/year in year 1; then included as part of waste processing contract	$35,000 one-off
Increased collection costs	Nil: residual moves to fortnightly collection replacing garden waste collection; food/garden collected weekly replacing current residual waste collection	$0
Residual waste transfer cost to waste processing host site	50% of total x $25/tonne = 40,000/yr x $25	$1.0m/yr
Residual waste processing cost	80,000 tonnes x $300/tonne	$24.0m/yr
Residue waste disposal cost	Included in mixed waste processing cost	$0
Benefits		
Increased recycling revenue	Nil, compost and recyclate product owned by contractor	
Landfilling costs saved (assuming residual waste would otherwise be sent to landfill)	80,000 tonnes x $330/tonne	$26.4m/yr
Improved amenity	No monetary valuation applied	
Project period		
Base year, planning and procurement	2015/16	
Infrastructure approvals and development	2016/17 to 2018/19	
Commissioning	2019	
End year	2033/34	

INITIATIVE 6:
DROP-OFF CENTRES FOR IMPROVED COMMUNITY RECYCLING & HOUSEHOLD PROBLEM WASTE CAPTURE

Description

The NSW Government *Waste Less, Recycle More* initiative includes a designated $70 million fund to support *Improved systems for household problem wastes*. The funding is available to establish community recycling drop-off centres in prominent locations to collect low level toxic wastes including paint, batteries, smoke alarms, etc, and some recyclables such as e-waste, paper/cardboard, beverage containers, and polystyrene.

Most regional Councils across NSW already operate facilities equipped to receive these sorts of wastes. However, these facilities are mostly at landfills or transfer stations and are not broadly patronised, and may not be known to a majority of community members. The community drop-off centre concept now embraced by the EPA was first developed by the Waste Boards, drawing on the success of smartly-designed, easily accessible facilities available in Germany and some parts of the UK. The EPA has further developed the idea and is counting on uniform branding and accessibility to generate patronage.

SCG Member Councils could potentially draw on funding support to establish, and perhaps jointly brand community drop-off centres (along with EPA/NSW branding). Existing waste facility sites are ideal low-cost locations provided they are accessible. Other locations include disused service stations and industrial parks.

Expected operating outcomes:

- A convenient collection point for low toxic products best kept out of kerbside waste bins, and recyclable materials not generally accepted in kerbside recycling systems.
- A potentially substantial increase in source-separated recyclable materials delivered by the community to central locations.

Advantages of a regional approach:

Property and set-up costs are substantial for drop-off centres in prominent locations which feature drive-through convenience. The development of look-alike drop-off centres is consistent with EPA funding requirements and makes sense in the geography of the Southern Region.

Potential benefits and merits:

- Increased recycling collection at no cost.
- Scope for gate revenue on certain designated materials and products (such as lead-acid batteries) which otherwise may have been included in domestic waste bins.
- Reduced waste to landfill.

- Recovery of recyclable materials for beneficial uses.
- Revenue from sale of recyclable materials to re-processors, with potentially attractive prices resulting from regional consolidation.
- Potential reduction of illegal waste dumping and inappropriate disposal.
- Potential future revenue from sale of RDF.

Potential costs and drawbacks:

- Drop-off centre capital cost and operating costs.
- Possible reduction in landfill gate revenue as a result of C&I low toxic waste being sent to drop-off centre rather than landfill (if C&I wastes are accepted).
- Landfill operating costs incurred for drop-off centre residues.
- Community engagement costs.

Strategic fit as a regional initiative:

- Highly relevant, resilient infrastructure to better manage problem wastes, increase recycling yield and conserve landfill space over a 10-15 year timeframe.

Potential risks:

Preliminary scan suggests three fundamental risk issues:

- delivery of intended resource recovery objectives;
- contribution to reducing illegal dumping; and
- commercial viability for member Councils.

This indicates a number of potential primary risk sources:

- program planning, site location(s) selection and drop-off centre set-up;
- decisions on drop-off centre ownership and operation;
- community and stakeholder engagement.

BCA Results:

Clear commercial viability, depending on gate price levels, and reprocessing value of materials actually received. Result would be improved with EPA contribution.

- Net present value: $18.24 million.
- Benefit/cost ratio: 1.8/1.0.
- NPV of costs: $21.88 million.
- NPV of benefits: $40.12 million.

BCA Input Data:

Project delivery assumption: assumed that the project is delivered on a Build, Own, Operate, Transfer basis with the plant sited on Council land and lease costs included in process contract costs. If one Council provides a site and hosts the facility, then commercial lease costs would be shared between the partnering Councils.

Project term is 15 years.

Waste Flows	Basis	Amount
Potentially available Regional recycling drop-off and problem wastes	Drop-off recycling currently to waste facilities: 10,000 tonnes/yr Kerbside clean up: 15,000 tonnes/yr Problem wastes drop-off waste to landfill: 10,000 tonnes/yr (EST)	35,000 tonnes/yr
Estimated actual capture of potentially available materials at drop-off centres	Estimated capture of potential waste: 60% of 35,000 potential waste/yr	21,000 tonnes/yr
Estimated recycling proportion of waste delivered to drop-off centres	Say 40% of the 21,000 tonnes/yr delivered waste	8,400 tonnes/yr
Costs		
Program planning and procurement of drop-off centres coordinated by SCG	Design, construction procurement and project management	$200,000 one-off
Construction and fit-out of 5 x drop-off centres (land not included)	Say $2m/centre x 5	$10m
Operating and maintenance costs	Say 3 EFT/centre at $70,000/EFT x 5 centres Utilities and maintenance $90,000/centre/yr x 5 centres	$1.5m/yr
Community education, and engagement costs	1 EFT x $70,000/year	$70,000/yr
Increased handling and transport costs for non-recyclable residues: drop-off centres to waste facilities for disposal	Say 60% of 21,000 tonnes/yr x $20/tonne	$252,000/yr
Residue waste disposal cost for 80% of 15,000 tonnes/yr	N/A, no extra waste generated, residue would have been disposed of in base case	$0
Recycling (MRF) cost for 20%	Say 40% of 21,000 tonnes/yr x $55/tonne	$462,000/yr
Benefits		
EPA grant to subsidise capital expenditure	Say 20% of total capex	$2.0m
Recycling revenue	Say 40% of 21,000 tonnes/yr x $100/tonne	$840,000/yr
Reduced bulky goods kerbside clean-up	Say 33% reduction on current 15,000 tonnes/yr bulky goods kerbside = 5,000 tonnes x $500/tonne	$2.50m/yr

Reduced illegal dumping		$0/yr
Landfilling costs saved by increased recycling	40% of 21,000 tonnes/yr x $330/tonne	$2.772m/yr
Improved amenity	No monetary valuation applied	
Project period		
Base year, planning and procurement	2015/16	
Infrastructure approvals and development	2016/17 to 2017/18	
Commissioning	2018	
End year	2027/28	

INITIATIVE 7.
UPGRADE AND EXTEND PUBLIC PLACE LITTER & RECYCLING BIN INFRASTRUCTURE, EDUCATION AND ENFORCEMENT

Description

The NSW Government *Waste Less, Recycle More* initiative includes a designated $137.5 million fund for the *Local Government Waste and Resource Recovery Program*. This includes a designated $70 million fund to "...improve recycling, and to tackle litter and illegal dumping". More specifically, the EPA has recently opened a $2 million Litter Prevention Grants program for NSW Councils.

The EPA has nominated high priority sites that include:

- Industrial sites;
- Retail strips;
- Shopping malls; and
- Car parks.

Recreational parks and highways are ranked as medium priority.

SCG and Member Councils have prepared complimentary applications to draw on funding support to establish integrated litter reduction programs. The regional component focuses on *Community Education and Enforcement* activity. Council applications include *Litter Counts and Related Solutions, Bin Infrastructure,* and *Clean-up* activity.

These activities can be supported by and the use of EPA tools such as *Hey Tosser* and *Local Litter Check* for litter-affected sites. An enlarged network of attractive public place waste and recycling bins throughout the region could contribute to both reduced litter and improved public place recycling opportunities. A key selling proposition would be that public place bins across the region would look identical, thus reinforcing positive messages in favour of recycling and litter prevention.

The deployment of increased numbers of waste and recycling bins across the region would increase the opportunity for surreptitious placement of SME C&I waste and recycling in public place bins. A complementary initiative could be for each Council to regulate for all SMEs to enter into a designated waste management contract.

Expected operating outcomes:

- A regionally integrated litter prevention program comprising both education/enforcement and amplified public place waste and recycling infrastructure.
- Improved diversion of recyclable materials to public recycling bins.

Advantages of a regional approach:

The integrated regional approach sets a positive tone for increased personal responsibility in a community setting for managing waste and recycling. The proposal is consistent with EPA funding requirements and makes sense in the geography of the Southern Region.

Potential benefits and merits:

- Increased material suitable for recycling.
- Reduced littering clean-up, collection and disposal.
- Reduced public place deposited waste to landfill as a result of increased public place recycling collection.
- Reinforcing of recycling culture and actions.
- Potential reduction of illegal waste dumping and inappropriate disposal.
- Potentially slightly reduced landfill costs.

Potential costs and drawbacks:

- Bin capital costs and establishment costs.
- Increased collection cost.
- Increased disposal cost.
- Community education and engagement costs.
- Program planning and implementation.

Strategic fit as a regional initiative:

- Highly relevant infrastructure to reduce litter, increase recycling yield and conserve landfill space.

Potential risks:

Preliminary scan suggests two fundamental risk issues:

- delivery of resource recovery and litter reduction objectives;
- commercial viability for member Councils.

This indicates a number of potential primary risk sources:

- program planning, site location selection and set-up;
- effectiveness in community education and engagement;
- decisions on frequency of bin collection.

BCA Results:

Potentially commercially self-sustaining if accompanied by wise deployment of bins and sufficient community engagement to substantially reduce litter clean-up costs.

- Net present value: $1.52 million.
- Benefit/cost ratio: 1.1/1.0.
- NPV of costs: $11.09 million.
- NPV of benefits: $12.61 million.

BCA Input Data:

Waste Flows	**Basis**	**Amount**
Proposed supplementary waste bins	600	
Proposed supplementary recycling bins	600	
Assumed collection cycles	Average 200 collections/bin/year with daily collection in warmer part of year and 1 to 2 day collection cycle in cooler part of year	
Ave waste bin contents at pickup	0.025 tonnes	
Ave recycling bin contents at pickup	0.015 tonnes	
200 collection cycles/year x 600 bin sets comprising 1 waste bin and 1 recycling bin	200 x 600 waste bin lifts = 120,000 lifts/yr 200 x 600 recycling bin lifts = 120,000 lifts/yr	3,000 waste tonnes/yr 1,800 recyclate tonnes/yr
Waste source - say 50% of the collected waste from this initiative would have previously been littered; and 50% would have been deposited in other bins	Increased waste collected: 3,000 x 50%	1,500 tonnes/year
Recycling source - say 50% of the collected (potential) recyclate from this initiative would have previously been littered; and 50% would have been deposited in other recycling bins	Increased recyclate collected: 1,800 x 50%	900 tonnes/year
Reduced litter clean-up, collection and disposal	0.5 x 3,000 + 0.5 x 1,800	2,400 tonnes/year
Costs		
Program planning and implementation		$25,000 one-off
Bin capital and set-up (5 year life)	$1,000/bin set x 600 bin sets	$0.6m capex
Bin housing cleaning and maintenance	$500/yr x 600 bin sets	$0.3m/yr

of local staff and EPA tools	EFT x $70,000/yr Litter blitz events, say 4/yr x 5 LGAs x $10,000/event x three yrs	$200,000/yr
Waste bin set contents collection cost – marginal cost given other collections are presently taking place	$2.50/pickup x 600 bins x 200 lifts/year	$0.3m/yr
Disposal of increased waste collected	Would previously have been sent to landfill after street sweeping or trash rack capture	$0
Recycling bin contents collection cost – marginal cost given other collections are presently taking place	$2.50/pickup x 600 bins x 200 lifts/year	$0.3m/yr
Recycling bin MRF cost	50% x 1,800 tonnes/yr x $80/tonne	$72,000/year
MRF residue disposal cost	50% x 900 tonnes/yr x $310/tonne (2014/15) increasing to $330/tonne (2016/17 and beyond)	$139,500m/year to $148,500m/yr
Benefits		
Increased recycling revenue	Nil, recyclate owned by MRF contractor	
EPA grants to SCG Secretariat and Member Councils	Grant funding 2014/15 to 2016/17	$0.75m/yr
EPA grant funding for litter blitz events	Litter blitz events, say 4/yr x 5 LGAs x $10,000/event x three yrs	$200,000/yr
Reduced litter clean-up and transport to landfill at $600/tonne	2,400 tonnes/yr x $600/tonne	$1.44m/yr
Improved amenity and reinforcement of recycling culture and actions	No monetary valuation applied	

INITIATIVE 8.
REDUCE ILLEGAL WASTE DUMPING

Description

The Southern Councils Group entered into a funding deed with the EPA in January 2013 to establish an Illegal Dumping Prevention Program in the Southern Region. The Deed provides $900,000 in funding over the period January 2013 to June 2015. The Program involves seven Councils (Wollongong, Shellharbour, Kiama, Shoalhaven, Eurobodalla, Bega Valley and Wingecarribee) and covers an area of over 18,000 square kilometres. A *Regional Illegal Dumping Prevention Strategy* has been prepared and a Regional Illegal Dumping Coordinator has been appointed to assist with the implementation of the strategy. In accordance with the Deed, all participating Councils are using the EPA data base to record illegal dumping incidents and monitor trends. A series of television advertisements has been aired across the region to raise community awareness of the problem, penalties for illegal dumping, and options for lawful disposal.

The SCG is negotiating with the EPA for an extension of the RID program for a further two years, which would extend the program to June 2017.

The NSW Government *Waste Less, Recycle More* initiative includes a designated $58 million fund for *Combating illegal dumping*. Following the announcement of the NSW Government *Waste Less, Recycle More* grants program for Illegal Dumping, SCG and Shoalhaven City Council have, together with land managers in the Nowra area, applied for a clean-up and prevention grant. SCG and other member Councils are considering making applications for clean-up and prevention grants in future rounds of the grants program.

Expected operating outcomes:

- A regionally coordinated program that will make the Region an unattractive and difficult place for illegal dumpers to operate.
- Community awareness of the problem of illegal dumping, its impact on the natural environment, amenity and Council operating costs. .

Advantages of a regional approach:

A coordinated Regional approach will increase the commitment of Councils to and participation in ID activities, build capacity for investigating and sharing intelligence about ID breaches and activities and increase surveillance and prosecutions. A community education program can be delivered most cost effectively when undertaken regionally.

Potential benefits and merits:

- Reduced illegal dumping, thus protecting the environment.
- Reduced clean-up requirements and costs.

Potential costs and drawbacks:

- Illegal dumping program costs including community education and engagement, strategic enforcement, and capacity building.

Strategic fit as a regional initiative:

- Highly relevant initiative to combat illegal dumping.

Potential risks:

Preliminary scan suggests two fundamental risk issues:

- delivery of reduced illegal dumping objectives;
- program costs to member Councils.

This indicates a number of potential primary risk sources:

- program planning, management and governance;
- effectiveness in community education and engagement.

BCA Results:

Would rely on EPA grant funding change behaviour

- Net present value: -$0.4 million.
- Benefit/cost ratio: 1.3/1.0.
- NPV of costs: $1.44 million.
- NPV of benefits: $1.84 million.

BCA Input Data:

Waste Flows	**Basis**	**Amount**
Regional illegal dumping to be cleaned up and taken to landfill as a result of this incremental initiative	Estimate	400 tonnes/yr
Costs		
Coordination and administration		$52,000/yr
Community engagement resources		$50,000/yr
Operations and training		40,000/yr
Council resource supplementation		208,000/yr
Benefits		
Reduced follow-up dumping and clean-up requirement	Say 120 tonnes/yr x $1,000/tonne incremental clean-up costs	$120,000/yr
EPA grants to SCG Secretariat and	Grant funding 2014/15 to 2017/18	$385,000/yr

Member Councils, extended one year beyond initially proposed 2016/17	
Improved amenity	No monetary valuation applied
Project period	
Base year	2014/15
Program commencement	2014/15
End year	2018/19

INITIATIVE 9.
STRENGTHENED REGIONAL POLICY, PROGRAM & PROCUREMENT CAPACITY

Description

Each of the SCG Member Councils faces demanding strategic and operational issues in waste management and these are likely to intensify over the medium term as the Councils work toward the goals contained in the NSW *Waste Avoidance and Resource Recovery Strategy 2013-2021*. The SCG already provides a regional coordination of nominated waste programs and a single point for development of region wide project funding applications.

The SCG has recently appointed a Regional Coordinator. With further strengthening of capacity, the SCG secretariat could increase the strategic capability of the region and play a wider, more effective role in coordinating regional action for improved waste management and resource recovery, such as:

- coordinating assessment of policy options for common issues and coordinating collaborative program responses;
- coordinating planning for region-wide waste services and infrastructure required for delivery of the NSW *WARR Strategy;*
- leading/coordinating procurement of region/sub-region waste services and infrastructure;
- leading/developing regional community waste education programs and initiatives;
- developing ways to improve service efficiency through increased collaboration;
- developing and maintaining a dashboard-style waste data and performance database;
- delivering region-wide programs.

The SCG has in place effective governance arrangements and a management framework to enable performance of a larger policy, planning and coordinating role. Strengthened resourcing would provide opportunities to improve the capacity and efficiency of waste businesses in planning, policy, planning, education and procurement at a time of forthcoming major change in waste services. And it would provide a basis for consideration of future shared commercial services and integrated use of waste facilities and assets.

Expected operating outcomes:

Increased regional collaboration through the SCG framework can reduce planning and procurement risks, improve community education and bring about medium-term efficiencies and waste services improvement.

Advantages of a regional approach:

A strengthened regional strategic model can elevate the waste management function and provide further strategic capacity beyond the level already attained at present through regional collaboration.

Potential benefits and merits:

- Potential for reduced Council waste operating costs and service improvements.
- Potential to reduce and control commercial and environment regulation risk.
- Improved application of scarce expert resources to regional issues.

Potential costs and drawbacks:

- Increased Secretariat costs, potentially funded from external sources.

Strategic fit as a regional initiative:

- Highly relevant initiative given the existing cohesion of the region.

Potential risks:

Preliminary scan suggests two fundamental risk issues:

- delivery of intended resource recovery objectives; and
- governance of regional policy in context of interests of each member Council.

This indicates a number of potential primary risk sources:

- continuing interest and input by each Council;
- suitability of governance design and ongoing administration;
- staffing to achieve harmonious collaboration.

BCA Results:

This initiative can bring substantial unquantified benefits that would flow to Councils. The initiative can also assist in cost control during period of increased financial management pressure and administrative reform.

- Net present value: $0.82 million.
- Benefit/cost ratio: 1.8/1.0.
- NPV of costs: $1.03 million.
- NPV of benefits: $1.85 million.

BCA Input Data:

Costs	Basis	Amount
Regional education officer	1 x $85,000/yr x 60%	$51,000/yr
Regional procurement officer	1 x $85,000/yr x 60%	$51,000/yr
Regional program officer	1 x $100,000/yr	$100,000/yr
Media and education material		$30,000/yr
Motor vehicle costs		$20,000/yr
Benefits		
EPA grant funding	Local government Waste and Resource Recovery Program	$120,000/yr
	Regional better waste and recycling fund	$119,000/yr
Council funding		$13,000/yr
Potential for reduced Council waste operating costs and service improvements	Say	$150,000/yr
Improved application of scarce expert resources to regional issues	Say	$50,000/yr
Project period		
Base year	2014/15	
End year	2018/19	

6. ACTION PLANS

This Action Plan set out below summarises preliminary implementation actions for the initiatives outlined at Chapter 5.

Substantive funding to undertake some initiatives may potentially be available in the form of direct grants and co-funding arrangements available in the NSW Government *Waste Less, Recycle More* initiative. Other proposals may need to be funded through SCG and Council core program funding arrangements.

Theme 1: Waste Avoidance

Objective	Action	Timing	Who	Lead Groups
Household education for waste avoidance, product reuse, and increasing recycling yield	Develop education campaign based on the main theme of waste avoidance supplemented by recycling, utilising EPA education materials and resources where available	2014-15	SCG Secretariat	
	Implement education program through Regional Waste Education Officer (see theme "Increased Regional Collaboration")	2014-17	SCG/Member Councils	
Love Food/Hate Waste	Review results of previous campaign and similar campaigns in other regions in liaison with EPA		SCG Secretariat	
	Investigate funding under *Waste Less, Recycle More* initiative and progress either Regionally or by Council as appropriate		SCG/Member Councils	
	If funding provided, develop and implement project plan and administer grant		SCG/Member Councils	
Product reuse community schemes	Prepare audit of all product reuse opportunities and programs across the region		SCG Secretariat	
	Monitor progress and facilitate information sharing on procurement, commissioning and operations		SCG Secretariat	
	Develop regional/sub region/local grant funding applications where appropriate		SCG /Member Councils	
	If funding provided, develop and implement project plan and administer grant		SCG Member Councils	
Promote home composting	Investigate opportunity for regional composting program and delivery options	2014-15	SCG Secretariat and Shoalhaven City Council	

	Develop compost education program and seek proposals from providers to deliver regionally.	2015-17	SCG Secretariat	
	If cost effective, implement program accessing available grant funding.	2015-17	SCG/Member Councils	

Theme 2: Increased Recycling

Objective	Action	Timing	Who	Lead Groups
Progressively implement local AWT-based waste processing for either food/garden waste or mixed waste.	Each Council will undertake its own business case analysis and procurement process	2014-2016	Each council	
	SCG Secretariat will monitor progress and facilitate information sharing on procurement, commissioning and operations	2014-2017	SCG Secretariat	
Maximise recovery and recycling of dry C&I waste that would otherwise be deposited into local landfill.	Prepare a paper on merits and issues associated with the introduction of a regional C&I MRF and program, with consideration of potential sites and operating models and working arrangements with business	2014-2017		
	If approved in-principle, seek co-funding grant under *Waste Less, Recycle More* Waste and Recycling Infrastructure Fund and Business Advisory Services Grant program			
Investigate the merit of longer-term centralised AWT processing of organic-depleted residual (red bin) waste (assuming Council uptake of food/garden waste processing).	Review merits and costs following implementation of primary AWT schemes.	2017	SCG Secretariat	
Reduce the volume of nappies and incontinence products going to landfill through domestic red bin services	Investigate the development of a regional collection and processing system for nappies and incontinence products. Prepare a paper on merits, costs and issues associated with the initiative, from the perspectives of service recipients and SCG member Councils.	2014/2015	SCG/Member Councils	
	Consider service procurement options.			
	If approved in-principle, proceed to a sample-scale trial to evaluate collection options and processing arrangements.	2014/2015		
	If trial successful, gain approvals and proceed to procurement.	2015/2016		

Theme 3: Increase Community Recycling and Problem Waste Collection

Objective	Action	Timing	Who	Lead Groups
SCG member Councils will collaborate or individually request *Waste Less, Recycle More* funding to establish one or two drop-off centres in accessible locations.	SCG Secretariat will monitor member Council proposals, consult with EPA on drop-off centre concept design, and review actions taken by other jurisdictions in establishing drop-off centres.	2014/2015	SCG Secretariat	
	Develop region-wide drop-off centre action plan.	2014/2015	SCG Secretariat	

Theme 4: Reduced Littering and Increased Public Place Recycling

Objective	Action	Timing	Who	Lead Groups
SCG member Councils will collaborate to increase public place recycling across the region.	Investigate options to increase public place recycling across region including the feasibility of deployment of consistent bin housing. Develop program plan, including bin set deployment, bin housing concept options, collection frequency, and cleaning and maintenance cycle.	2014/2015	SCG Member Councils	
	Priority locations: parks, waterways, events and CBDs.			
	Apply for co-funding grant.	2014/2015	SCG Secretariat	
	Undertake regional pilot-trial to confirm cost-effectiveness of program; report trial outcomes.	2014/2015	SCG/Member Councils	
	If trial successful, finalise program plan, gain approvals and proceed to procurement.	2015/2016	SCG Member Councils	
	Develop community education and engagement plan.	2015/2016	SCG Member Councils	
Reduce littering across region	Apply for EPA litter grant funding to initiate regional litter prevention/reduction program	2013/17	SCG Member Councils	
	If funding provided, develop and implement project plan and administer grant in partnership with participating Councils	2014/15	SCG/Member Councils	
	Develop regional community education and engagement plan.	2014/15	SCG Secretariat	
	Assist Councils as required to apply for litter grant funds to address local litter issues	2013/17	SCG Secretariat	

Theme 5: Reduced Illegal Dumping

Objective	Action	Timing	Who	Lead Groups
SCG and member Councils will continue to operate the Regional Illegal Dumping Program and seek agreement from the EPA to extend and further supplement the program.	Negotiate with EPA for a two year extension to and additional funding for current RID program	2014/2015	SCG Secretariat	
	Continue to implement and refine the approved regional illegal dumping prevention strategy and communication plan			
	Investigate actions taken by other jurisdictions to reduce illegal dumping	2014/2015	SCG Secretariat	
	Develop a community education and engagement program to prevent illegal dumping	2014/2015	SCG Secretariat	
Clean up and prevent illegal dumping in known hot spots across the region	Identify hot spots in each LGA that would be suitable candidates for EPA illegal dumping clean-up and prevention program funding.			
	Work with Councils and relevant land managers to develop clean up and prevention grant applications	2014/2015	SCG Secretariat	
	Develop project plans and administer grants awarded to SCG in consultation with partner Councils / land managers			

Theme 6: Increased Regional Collaboration

Objective	Action	Timing	Who	Lead Groups
SCG and member Councils will work to strengthen collaboration to deliver cost-effective regional/sub-regional waste services and activities utilising *Waste Less Recycle More Grant* funds where possible.	Appoint Regional Coordinator and establish Regional Waste Advisory Group	2013/14	SCG Secretariat	
	Develop Regional Waste Strategy identifying regional opportunities and seek approval for strategy	2013/14	SCG/Member Councils	
	Appoint Education Officer	2014/15	SCG Secretariat	
	Scope role and requirement of Procurement Officer	2014/15	SCG Secretariat	
	Investigate opportunities including the development of cost benefit analysis and project proposals where appropriate	2014/15	SCG/Member Councils	
	Seek in principal approval from participating Councils to implement regional / sub regional initiatives	2015/16	SCG Member Councils	
	Develop applications for *Waste Less Recycle More Grant* funding (regional / sub regional / local) where appropriate	2015/16	SCG Member Councils	
	If project and funding approved, develop project plan and administer grant.	2015/16	SCG Secretariat	
SCG member Councils will conduct joint tendering, where cost-effective, for collection services, and waste & recycling processing services.	Identify joint procurement / tendering opportunities	2014/15	SCG/Member Councils	
	Develop specifications and tender documents and conduct procurement processes	2015/16	SCG/Member Councils	

APPENDIX A. Detailed Analysis of Current Situation

Population and Demographic Profile

Table A-1 provides a breakdown of the population projections and dwelling compositions for each LGA. Data for 2011 has been used to ensure comparability with the waste data provided by the EPA. The EPA definition for multi unit dwellings (MUDs) includes the ABS categories of semi-detached, row or terrace house, townhouse, flat, unit or apartment, and the single unit dwellings (SUDs) are in a category of their own.

Table A-1: Population Projection and Dwelling Composition

Council Name	Population (2011) [a]	Projected Population (2036)[a]	No. Households (2011) [b]	% SUDs (2011/12)	% MUDs (2011/12)
Wollongong	202,068	237,343	88,237	72%	28%
Shellharbour	66,218	85,629	23,811	84%	16%
Kiama	20,806	23,116	8,853	91%	9%
Shoalhaven	96,203	122,088	52,825	90%	10%
Wingecarribee	46,126	56,101	20,923	91%	9%
Region	431,421	524,277	194,649	80%	20%

a. ABS Census 2011

b. EPA data

Dwelling Composition

The following table shows the annual growth rates of both SUDs and MUDs over the same ten year period for each of the councils. The trend towards increased MUD development is prevalent throughout the region.

Table A-2: Percentage Growth of Dwelling Types: SUDs and MUDs – 2001 to 2011[a]

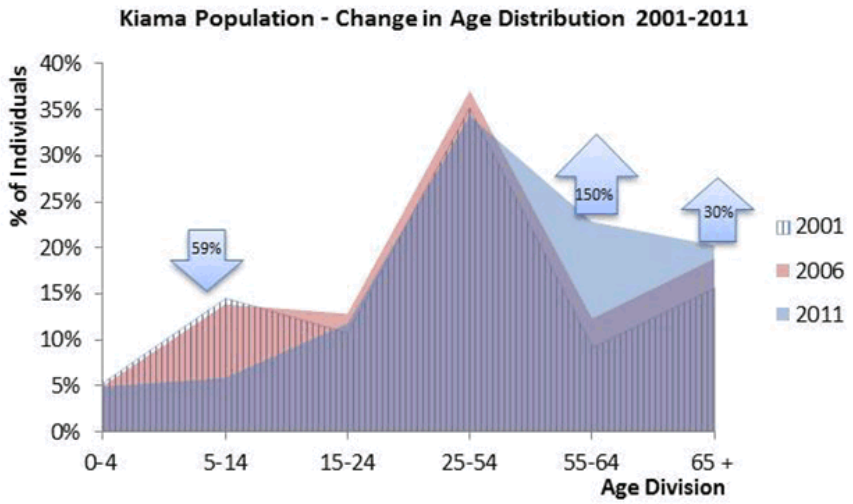
	Wollongong	Shellharbour	Kiama	Shoalhaven	Wingecarribee	SCG
SUD	0.29%	1.08%	0.38%	0.80%	0.94%	0.62%
MUD	1.29%	1.96%	3.31%	2.55%	2.92%	1.66%

a. WCS analysis based on EPA data

Age Distribution Analysis

Analysis of the age groups within the census data in the ten year period between 2001 and 2011 (Figure A-1 below) has demonstrated an ageing trend in the population; particularly in Kiama.

Figure A-1: Change in age distribution of Kiama residents 2001-2011 (WCS analysis based on ABS data)



The other four SCG councils show a similar ageing trend to Kiama, although not to the same extent. The median age across the SCG councils has increased between 2001 and 2011, with a decrease in the percentage of individuals in the age groups 0-14 years, and increases in the percentage of individuals over 55 years of age.

Table A-3: SCG Population – Change in Age Distribution 2001-2011 (ABS)

	% Change in Age Bracket					
LGA	**0-4 Decreasing**	**5-14 Decreasing**	**15-24 Variable**	**25-54 Variable**	**55-64 Increasing**	**65 + Increasing**
Wollongong	4%	59%	Stable	Stable	19%	15%
Shellharbour	14%	11%	1% ↑	7% ↑	26%	35%
Kiama	8%	59%	Stable	3% ↓	150%	30%
Shoalhaven	10%	22%	17% ↑	9% ↑	23%	22%
Wingecarribee	14%	18%	6% ↑	13% ↓	27%	41%

Proficiency in English

The majority of the population in the SCG are proficient in English (see Table A-3) which can

allow greater ease of communication with residents and reduce the need for translation of education materials.

Table A-3: Percentage of Non-English Speaking Residents (ABS)

LGA	Residents Without English
Wollongong	14.3%
Shellharbour	8.5%
Kiama	2.0%
Shoalhaven	4.1%
Wingecarribee	2.3%
SCG	6.2%
NSW	14.6%

Waste and Resource Recovery Data

Recycling Sources

Table A-4 contains a breakdown of the recycling figure into the five recycling streams.

Table A-4: Recycling tonnages in the region (2011/12 EPA)

Council Name	Kerbside Dry	Drop off [a]	Clean up [a]	Garden (kerbside, clean up and drop off)	AWT	Total
Wollongong	16,688	1,878	840	28,998	0	48,404
Shellharbour	6,766	1,562	8	13,276	0	21,612
Kiama	2,194	256	94	3,752	0	6,296
Shoalhaven	11,806	4,413	246	11,836	0	28,301
Wingecarribee	4,653	1,767	0	2,723	3,010	12,153
Region	42,106	9,876	1,189	60,585	3,010	116,766

a. Figures do not include greenwaste

Kerbside Clean Up

Table A-5 contains a breakdown of kerbside clean up figures.

Table A-5: Kerbside Clean Up – Waste Generated and Disposed – tonnes (2011/12 EPA)

Council Name	Recovered	Disposed	Generated	Percent Recycled
Wollongong	840	3,687	4,527	19%
Shellharbour	11	50	61	18%
Kiama	94	183	278	34%

Shoalhaven	246	5,148	5,394	5%
Wingecarribee	63	0	63	100%
Region	1,254	9,069	10,324	12%

Table A-6 contains the breakdown of material types that were recycled in 2011/12 through the kerbside hard-waste collection.

Table A-6: Kerbside Clean Up – Breakdown of Material Types Recycled [a] - tonnes

Council Name	(e-waste)	Garden Waste	Metal	Other	Bulky	Other Recyclables	Total Recovered
Wollongong	463				368	9	840
Shellharbour	2	3				6	11
Kiama			94				94
Shoalhaven	107		31	7	101		246
Wingecarribee		63					63
Region	572	66	125	7	469	15	1,254

a. Data provided by Wollongong did not add up to figures reported in 2011/12 data. In the absence of data that matched 2011/12 data, WCS used the proportions of the materials reported for 2012/13 to calculate 2011/12 recycling breakdown.

Drop Off Material

Table A-7 contains a breakdown of the material dropped off by residents at the various resource recovery facilities.

Table A-7: Drop Off - Materials Generated and Disposed – tonnes (2011/12 EPA)

Council Name	Dry Recyclables	Organics	Landfill	Generated	Recovered
Wollongong	1,878	3,897	5,672	11,447	50%
Shellharbour	1,562	4,774	6,370	12,706	50%
Kiama	256	878	-	1,134	100%
Shoalhaven	4,413	6,968	1,398	12,779	89%
Wingecarribee	1,767	2,660	933	5,360	83%
Region	9,876	19,177	14,372	43,425	67%

Composition Studies and Audit Data

Construction and Demolition Waste

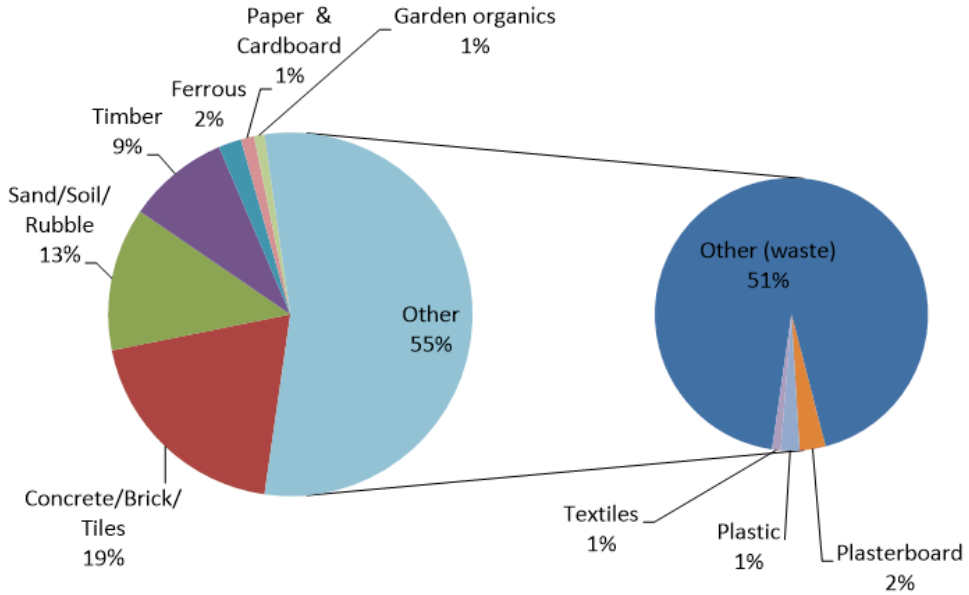
Table A-8 contains an estimate of the construction and demolition waste generated, recycled and disposed. These calculations were made by WCS using NSW data in the absence of more accurate data.

Table A-8: C&D Waste Tonnage Estimations (WCS Calculation from ABS & EPA Data)

Council Name	Generated	Recycled	Disposed
Wollongong	167,419	125,005	42,414
Shellharbour	57,922	43,248	14,674
Kiama	22,005	16,431	5,575
Shoalhaven	87,470	65,310	22,160
Wingecarribee	49,667	37,085	12,583
SCG	384,483	287,077	97,406

Figure A-2 depicts the composition of the C&D waste stream based on NSW figures. The pie on the left is the portion for which there are valid recycling options available, and the one on the right contains the more difficult to recycle materials, or materials for which there are no current recycling options in NSW. Recyclable components constitute around 45% of the materials. This figure would be higher if fuel were an option, as the "other wastes" would contain a combustible component.

Figure A-2: Construction and Demolition Landfill Audit Data NSW (EPA Data)



Current Waste and Resource Recovery Operations and Contracts

Table A-9 below contains the current collection contracts for each of the waste streams.

Table A-9. Table XX: Current Collection Contracts (Council-provided)

Council Name	Services Provided	Service Provider	Material Collected	Contract Duration	Contract Expiry
Wollongong	Kerbside waste and clean up service	Remondis	Waste Clean up	17 yrs	30/6/14
	Kerbside recycling service	Remondis	Recycling	21 yrs	30/6/14
	Kerbside garden waste service	Remondis	Garden waste	9 yrs	30/6/14
Shellharbour	Kerbside collections	Remondis	Waste Recycling Garden waste	6 yrs	30/06/14
Kiama	Kerbside Domestic for urban areas	KMC	Waste Recycling Garden waste	Ongoing Ongoing Ongoing	NA
	Kerbside Domestic for rural areas	KMC	Waste Recycling	Ongoing Ongoing	NA
	Kerbside Clean up (two/yr) urban areas only	KMC	Clean up	Ongoing (under review)	NA
Shoalhaven	Kerbside garbage and recycling collection	Sita	Waste Recycling	6 yrs ext. by 3 yrs	30/6/17 ext. 30/6/20
	Kerbside on-call garden and bulky waste pick up	Subloos	Garden waste Clean up	6 yrs ext. by 3 yrs	30/6/17 ext. 30/6/20
Wingecarribee	Kerbside Collection	SITA	Waste Recycling	7 yrs	30/06/13
	Transport	SITA	Waste	7 yrs	30/06/13

Table A-10 below contains the current processing contracts for each of the waste streams.

Table A-10: Current Processing Contracts (Council-provided)

	Waste Stream	Service Provider	Service	Contract Duration	Contract Expiry
Wollongong	Garden organics	Remondis	Kerbside & drop off	9 years	30/6/14
	Dry recycling	Remondis	Kerbside & drop off	12 years	30/6/14
Shellharbour	Garden organics	In house	Kerbside & drop off		
	Dry recycling	Remondis	Kerbside & drop off	12 years	30/6/14
Kiama	Domestic garbage	Shellharbour Council	Kerbside & drop off		
	Dry recycling	**Shoalhaven**	**Kerbside &**		

		Recyclers	drop off		
	Garden organics	Shoalhaven Recyclers	Kerbside & drop off		
Shoalhaven	Dry recycling	Shoalhaven Recycling	Kerbside & drop off	6yrs ext. 3 years	30/6/17 ext. 30/6/20
Wingecarribee	Dry recycling	SITA	Kerbside & drop off		
	Domestic garbage	SITA	Organics-rich residual waste		

APPENDIX B. Review of SCG Council Services and Strategies

This Appendix summarises the broad waste management and resource recovery service arrangements and strategies of each of the SCG member Councils.

SCG member Councils exceed the NSW average recycling rate and are broadly committed to the general direction described in the WARR Strategy and working toward the recycling and other targets outlined in the WARR Strategy.

Wollongong City Council

Key Functional Arrangements

Waste Function	Service Delivery
Management/planning	Council staff
Collection	New contract to commence 1 July 2014
Landfill operations	WCC staff, Whytes Gully Waste &Resource Recovery Park
Waste education	WCC staff, separate division, plus collection contract provision
Call centre	WCC staff

Current Disposal and Processing Arrangements

Waste Category	Service Delivery
Domestic kerbside waste	Disposal at Whytes Gully, 40 years remaining capacity
Domestic kerbside recycling	New contract to commence 1 July 2014 via T/F at Whytes Gully
Domestic garden organics	Mulch and compost at Whytes Gully
Clean-up waste	Disposal after limited kerbside sorting for recycling
Domestic self-haul	Drop-off recycling and waste transfer station
C&I waste	Direct disposal of waste received to landfill
C&D waste	Not generally accepted
Municipal parks and gardens	Separate unit in Council – disposal organised on commercial basis
Household hazardous waste	Limited acceptance, direct disposal to landfill

Summary Waste Management Strategy

Strategic Themes	Draft Waste Strategy/Objectives
Waste and sustainability best practice at Whytes Gully	Minimise emissions, conserve landfill capacity, operate efficiently
Community actively avoids, reduces, reuses, and recycles	Support, opportunities advice and guidance to community in working toward WARR Strategy targets
Litter and illegal dumping reduced	Informed, engaged community supported by Council programs to manage litter and dumping
Council provides leadership in waste management and resource recovery	Efficient services conserving resources and protecting the environment
Domestic waste processing	Investigating AWT – Food/garden waste or mixed waste

Shellharbour City Council

Key Functional Arrangements

Waste Functions	Service Delivery
Management/planning	Council staff, Shellharbour
Collection	New contract soon to be let – fortnightly collection
Landfill operations	Council staff, Dunmore R&WDD Leachate treatment and landfill gas extraction
Waste education	Council staff plus collection contract provision
Call centre	Provided by WCC

Current Disposal and Processing Arrangements

Waste Category	Service Delivery
Domestic kerbside waste	Fortnightly collection, disposal at Dunmore Landfill
Domestic kerbside recycling	Collection fortnightly, MRF contract, Rydalmere via T/F at Whytes Gully
Domestic garden organics	Collection fortnightly, Mulch and compost, Dunmore R&WDD
Clean-up waste	Disposal after limited kerbside sorting for recycling
Domestic self-haul	Dunmore R&WDD
C&I waste	Moderate sorting and recycling
C&D waste	Moderate sorting and recycling
Municipal parks and gardens	Disposal at Dunmore R&WDD
Hazardous waste	Limited acceptance, direct disposal at Dunmore R&WDD

Summary Waste Management Strategy

Strategic Themes	Strategy/Objectives
Avoid the generation of waste	Encourage change in both Council and the community by educating, integrating and practicing waste avoidance and resource recovery.
Increase reuse and recovery from MSW, C&I and C&D sources	Hypothecate fees and charges into education, comprehensive services and infrastructure. Demonstrate that Council leads by example.
Minimise impacts of waste operations on health and environment	Provide appropriate infrastructure, services and enforcement to maximise benefits to health and environment,
Ensure cost effectiveness and equitability	Review compliance and whole of life arrangements of Council waste facilities.

Kiama Municipal Council

Key Functional Arrangements

Waste Functions	Delivery Strategy
Management/planning	Council staff
Collection	Council staff
Landfill operations	N/A – no landfill
Waste education	Council staff

Current Disposal and Processing Arrangements

Waste Category	Waste & Recovery Strategy
Domestic kerbside waste	Disposal at Dunmore R&DD
Domestic kerbside recycling	MRF contract with Shoalhaven Recycling, Bomaderry
Domestic garden organics	Shred at Minnamurra RCC, then transfer to Soilco for processing
Clean-up waste	On-call for two user pays pick-ups/year Disposal after limited Kerbside sorting for recycling of e-waste, mattresses, tyres, containers
Domestic self-haul	Drop-off at RCC of paper/cardboard, e-waste, mattresses, tyres, containers
C&I waste	Recyclable C&I accepted at RCC
C&D waste	Not accepted
Municipal parks and gardens	To Dunmore R&DD
Hazardous waste	N/A

Summary Waste Management Strategy

Strategic Themes	Strategy/Objectives
Maximise diversion	Avoid landfill costs by maximising the diversion of organics and recyclables and treating the mixed waste stream to recover any remaining materials.
Value for money	Maximise value for money in collection and processing systems
Education and communication	Empower the community to maximise outcomes
Community actively avoids, reduces, reuses, and recycles	Support, opportunities advice and guidance to community in working toward WARR Strategy targets
Resilience	Remain open to new opportunities arising from changes in the status quo

Shoalhaven City Council

Key Functional Arrangements

Waste Functions	Delivery Strategy
Management/planning	Council staff
Collection	Council staff
Landfill operations	Council staff
Waste education	Council staff

Current Disposal and Processing Arrangements

Waste Category	Waste & Recovery Strategy
Domestic kerbside waste	Disposal at West Nowra landfill, 10 years capacity
Domestic kerbside recycling	MRF contract with Shoalhaven Recycling, Bomaderry
Domestic garden organics	No garden waste collection available at 10 Council Depots across LGA compost, West Nowra Drop off Mulch and
Clean-up waste	On-call for two pick-ups/year then user pays after limited kerbside sorting for recycling to Mission Australia Disposal Mattresses
Domestic self-haul	Drop-off recycling and waste available to 10 depots across LGA
C&I waste	Moderate sorting and recycling
C&D waste	Moderate sorting and recycling
Municipal parks and gardens	Direct disposal to landfill
Hazardous waste	Direct disposal to landfill

Summary Waste Management Strategy

Strategic Themes	Strategy/Objectives
Recover materials from domestic waste	Completed EIS for resource recovery park Completed EOI review and will call tenders for AWT in 2014
Conserve remaining landfill space	Extend the life of the landfill and avoid levy costs by maximising the diversion of organics and recyclables and treating the mixed waste stream to recover any remaining materials.
Actively avoids, reduces, reuses, and recycles	Support, opportunities advice and guidance to community in working toward WARR Strategy targets
Protect community from rising costs	Avoid levy costs by reducing waste to landfill. Prevent future liability by diverting organic materials.

Wingecarribee Shire Council

Key Functional Arrangements

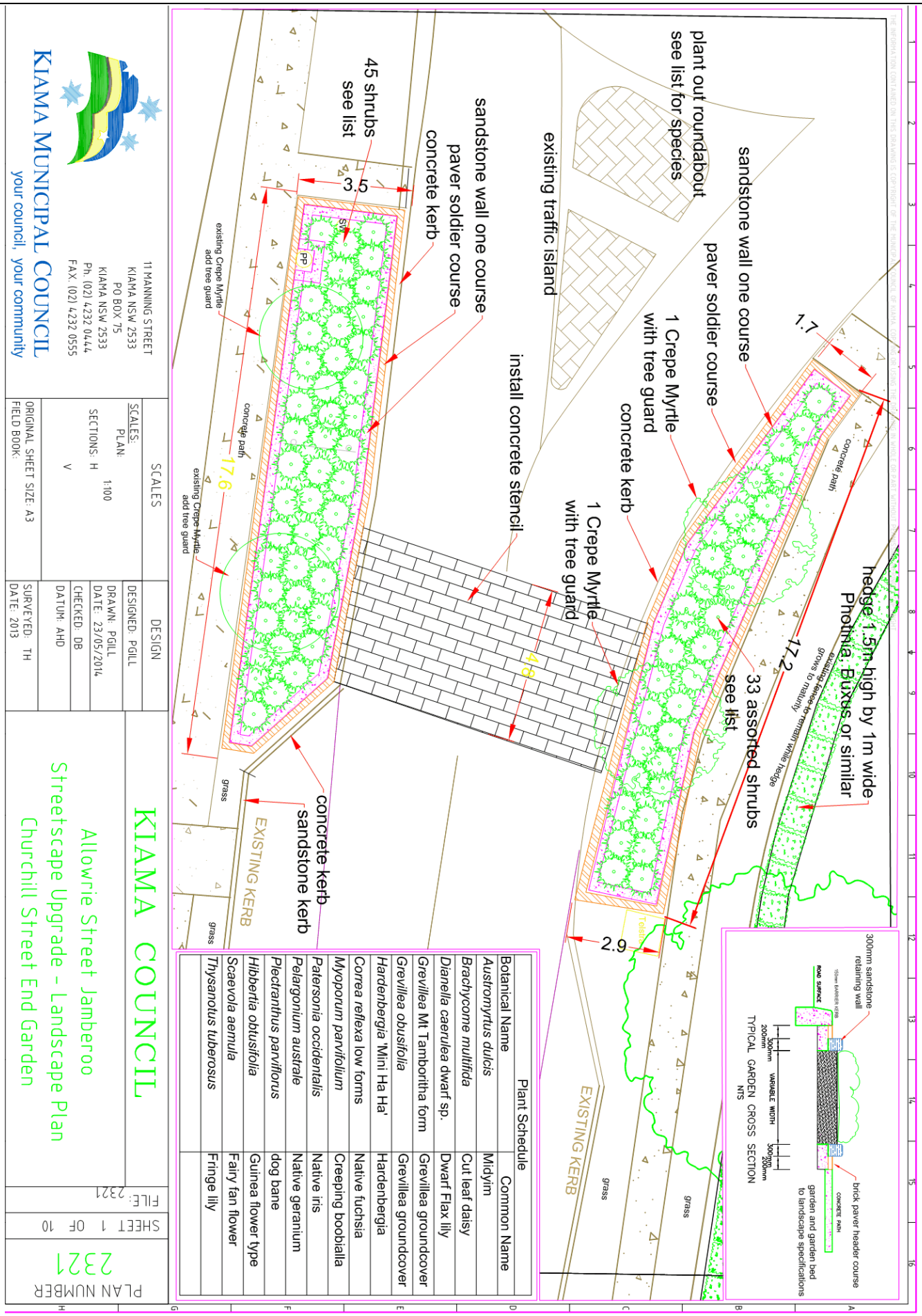
Waste Functions	Service Delivery
Management/planning	Council staff
Collection	Sita
Landfill operations	N/A no landfill
Waste education	Council staff plus contract provision
Call centre	Contract provision

Current Disposal and Processing Arrangements

Waste Category	Service Delivery
Domestic kerbside waste	AWT processing of mixed waste at Jacks Gully
Domestic kerbside recycling	Collection and processing by Sita (to June 2014)
Domestic garden organics	Currently no garden waste collection, scheduled to start in July 2014
Clean-up waste	On-call for two user pays pick-ups/year Disposal after limited Kerbside sorting for recycling of e-waste, mattresses, tyres, containers
Domestic self-haul	N/A
C&I waste	N/A no landfill
C&D waste	N/A no landfill
Municipal parks and gardens	Disposal at Jacks Gully
Hazardous waste	N/A no landfill

Summary Waste Management Strategy

Strategic Themes	Strategy/objectives
Community actively avoids, reduces, reuses, and recycles	Provide support, opportunities, advice and guidance to community. Improve recycling in public places, schools and at events. Reduce contamination. Work toward WARR Strategy targets.
Examine recovery options for organic waste	Consider introduction of source separated organics capture system.
Ensure efficiency of collection systems	Examine collection systems for improved efficiency, coverage of material types and environmental protection.



Plant Schedule	
Botanical Name	Common Name
Austromyrtus dulcis	Midyim
Brachycome multifida	Cut leaf daisy
Dianella caerulea dwarf sp.	Dwarf Flax lily
Grevillea Mt Tamboritha form	Grevillea groundcover
Grevillea obusifolia	Grevillea groundcover
Hardenbergia 'Mini Ha Ha'	Hardenbergia
Correa reflexa low forms	Native fuchsia
Myoporum parvifolium	Creeping boobialla
Patersonia occidentalis	Native iris
Pelargonium australe	Native geranium
Plectranthus parviflorus	dog bane
Hibbertia obtusifolia	Guinea flower type
Scaevola aemula	Fairy fan flower
Thysanotus tuberosus	Fringe lily

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SCALES
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FIELD BOOK:

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DRAWN: PGILL
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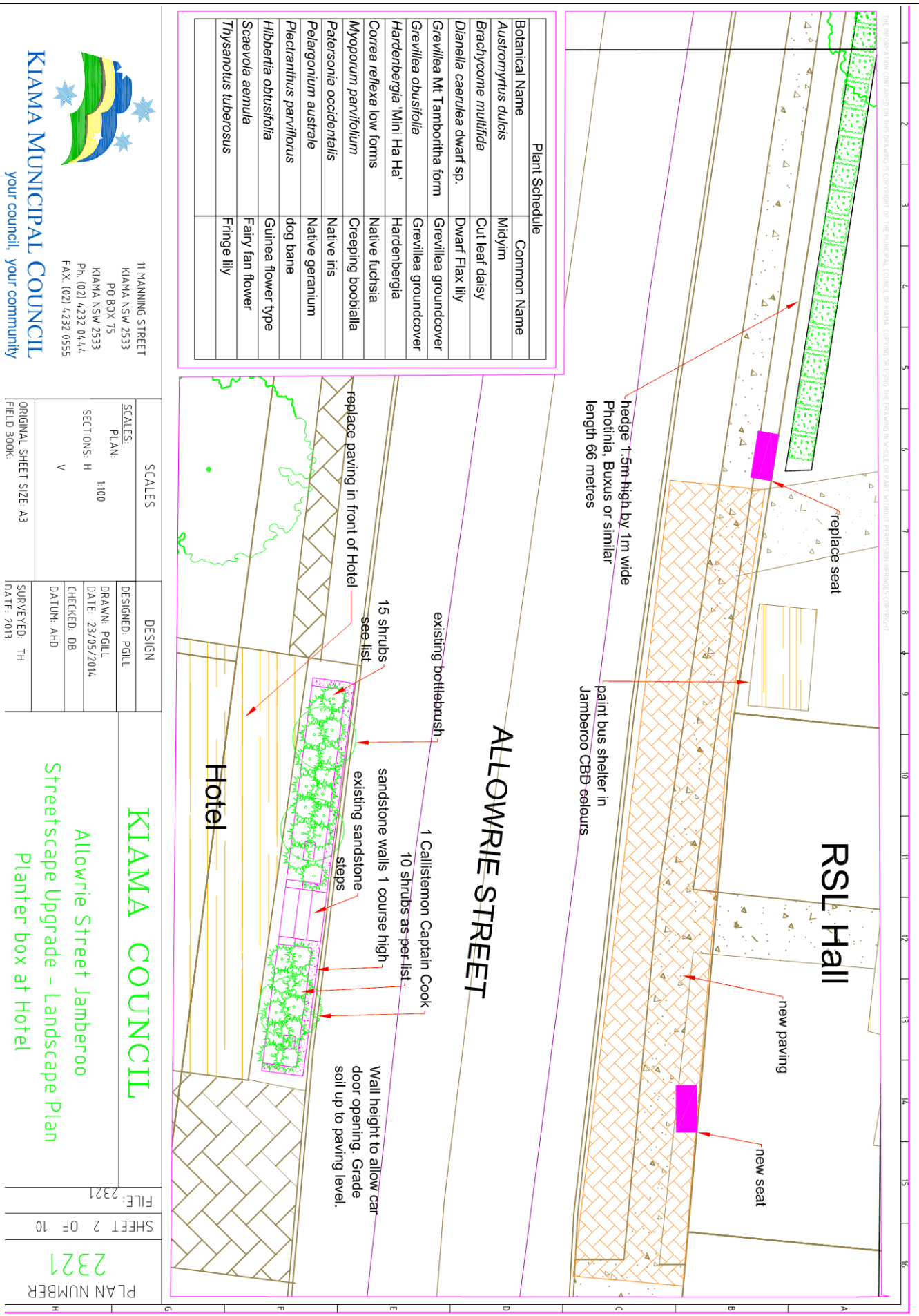
DATE: 2013

KIAMA COUNCIL

Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Churchill Street End Garden

FILE: 2321
SHEET 1 OF 10
PLAN NUMBER
2321



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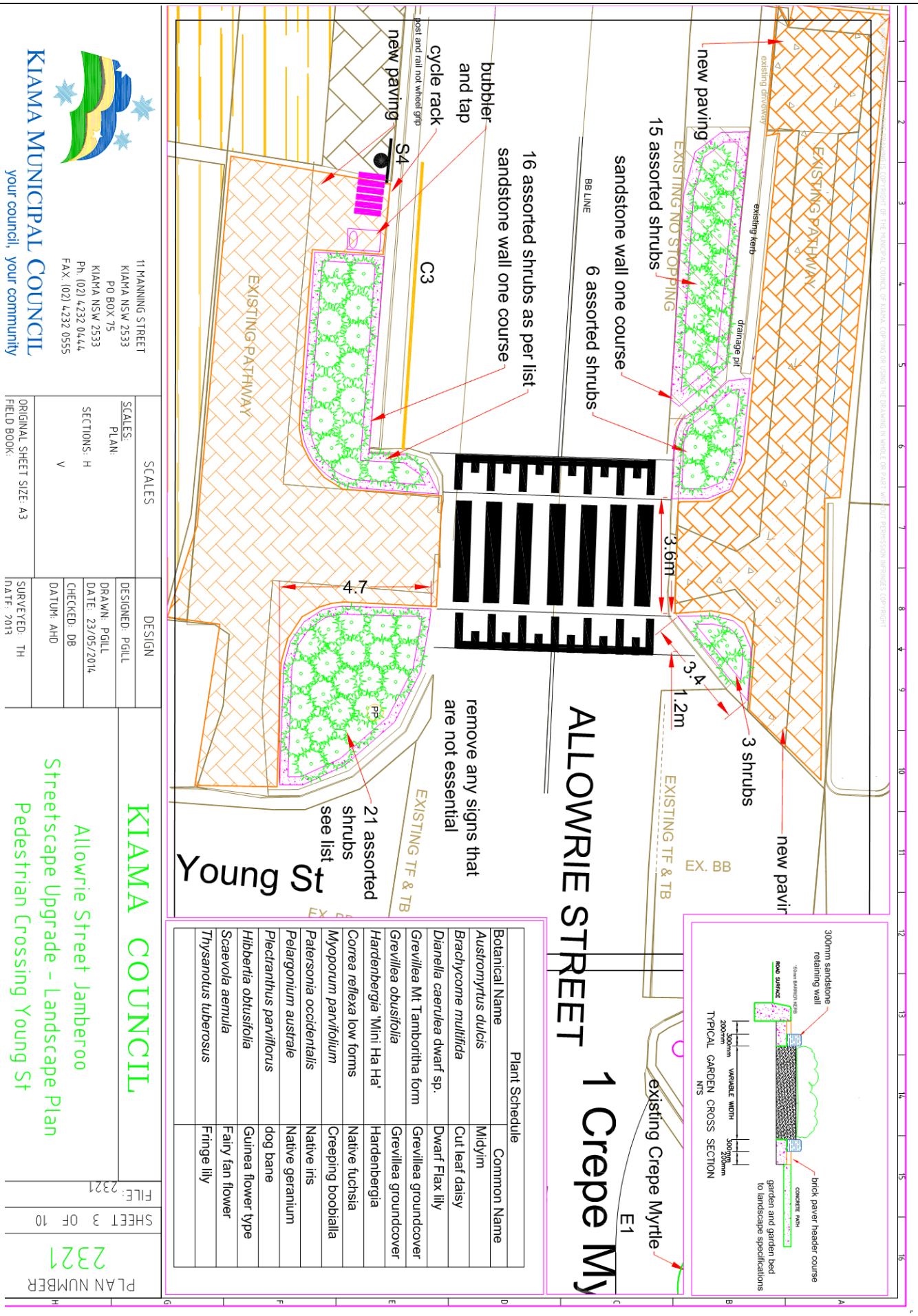
Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Planter box at Hotel

FILE: 2321
SHEET 2 OF 10
PLAN NUMBER
2321



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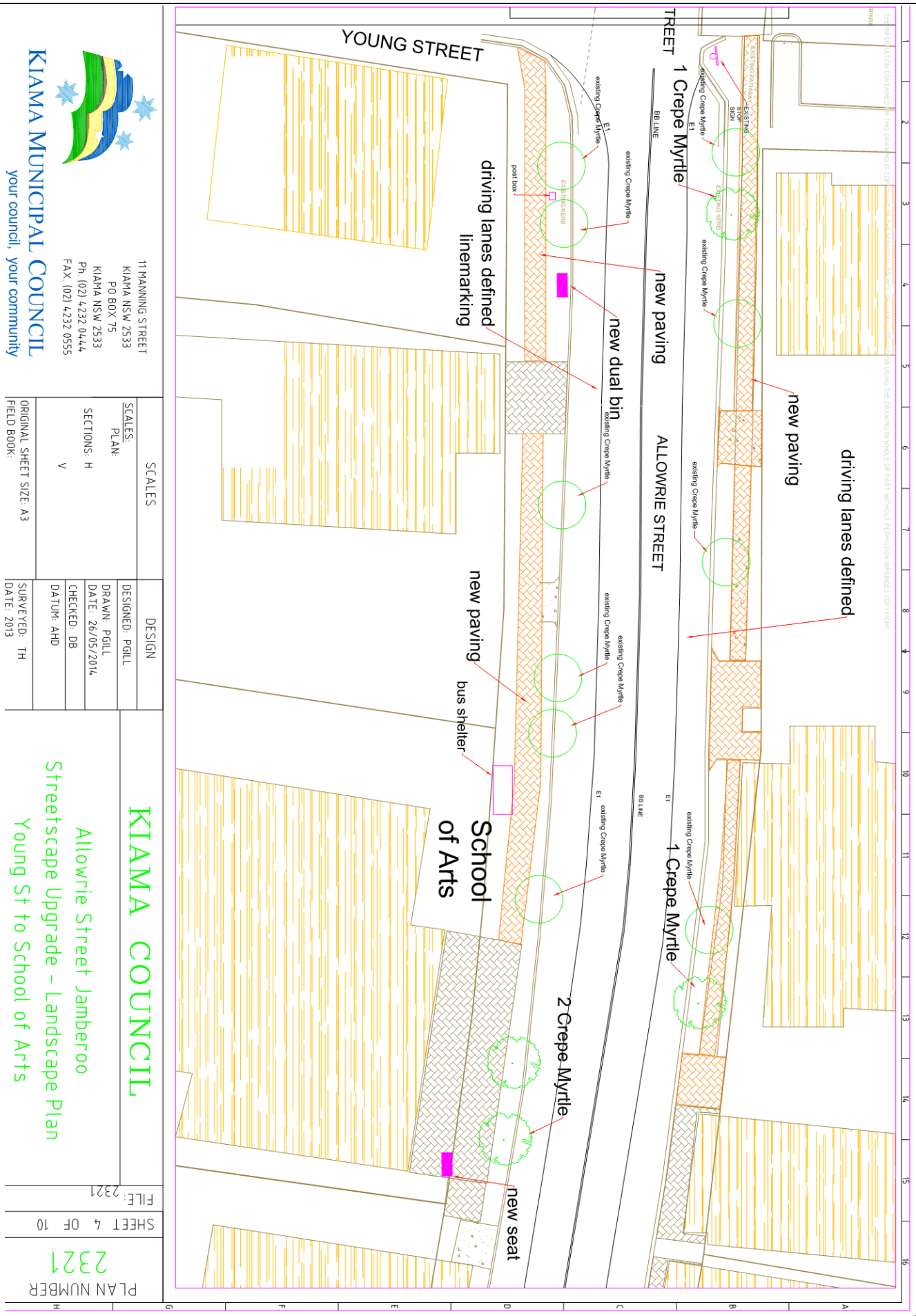
Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Pedestrian Crossing Young St

FILE: 2321
SHEET 3 OF 10
PLAN NUMBER
2321


YOUNG STREET
1 Crepe Myrtle
driving lanes defined
linemarking
new dual bin
new paving
ALLOWRIE STREET
new paving
driving lanes defined
new paving
bus shelter
School of Arts
2 Crepe Myrtle
1 Crepe Myrtle
new seat
existing Crepe Myrtle
post box
EXISTING KERB
BB LINE
E1
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DATE: 2013
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Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Young St to School of Arts
FILE: 2321
SHEET 4 OF 10
PLAN NUMBER
2321

Plant Schedule	
Botanical Name	Common Name
Austromyrtus dulcis	Midyim
Brachycome multifida	Cut leaf daisy
Dianella caerulea dwarf sp.	Dwarf Flax lily
Grevillea Mt Tamboritha form	Grevillea groundcover
Grevillea obusifolia	Grevillea groundcover
Hardenbergia 'Mini Ha Ha'	Hardenbergia
Correa reflexa low forms	Native fuchsia
Myoporum parvifolium	Creeping boobialla
Patersonia occidentalis	Native iris
Pelargonium australe	Native geranium
Plectranthus parviflorus	dog bane
Hibbertia obtusifolia	Guinea flower type
Scaevola aemula	Fairy fan flower
Thysanotus tuberosus	Fringe lily

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Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Landscape in front of No. 36 Allowrie St

FILE: 2321

SHEET 5 OF 10

PLAN NUMBER
2321

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Botanical Name	Common Name
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Plectranthus parviflorus	dog bane
Hibbertia obtusifolia	Guinea flower type
Scaevola aemula	Fairy fan flower
Thysanotus tuberosus	Fringe lily

Plant Schedule

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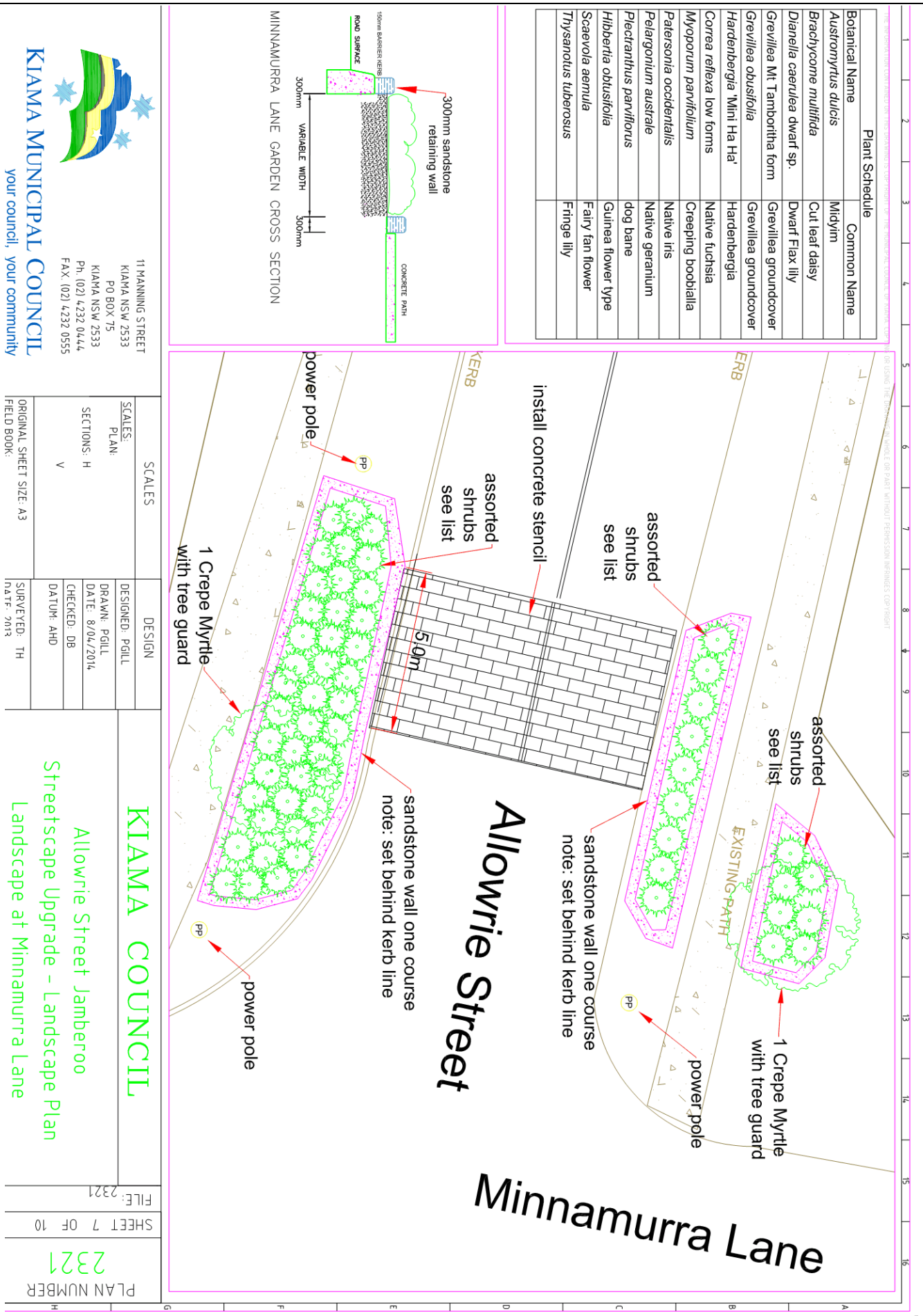
Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Landscape near Kinross Place

FILE: 2321
SHEET 6 OF 10
PLAN NUMBER 2321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Patersonia occidentalis
Native iris
Pelargonium australe
Native geranium
Plectranthus parviflorus
dog bane
Hibbertia obtusifolia
Guinea flower type
Scaevola aemula
Fairy fan flower
Thysanotus tuberosus
Fringe lily
300mm sandstone retaining wall
150mm BARRIER KERB
ROAD SURFACE
CONCRETE PATH
300mm
VARIABLE WIDTH
300mm
MINNAMURRA LANE GARDEN CROSS SECTION
Allowrie Street
Minnamurra Lane
assorted shrubs see list
1 Crepe Myrtle with tree guard
power pole
sandstone wall one course note: set behind kerb line
install concrete stencil
5.9m
KERB
EXISTING PATH
PP
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KIAMA COUNCIL
Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Landscape at Minnamurra Lane
FILE: 2321
SHEET 7 OF 10
PLAN NUMBER
2321

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Allowrie Street Jamberoo
Street Upgrade
Landscape detail

FILE: Garden Bed
SHEET 8 OF 10
PLAN NUMBER
2321

Features - street furniture not shown in Jamberoo colour palette sample pictures only

Jamberoo Colour Palette

Kalamata
Surfmist
Dune
White

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KIAMA COUNCIL

Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Street Furniture

FILE: 2321

SHEET 9 OF 10

PLAN NUMBER
2321

WYALLA ROAD
Reid Park
Drawing 1
Drawing 2
Hotel
RSL
IGA
Drawing 3
YOUNG STREET
Drawing 4
Drawing 5
ALLOWRIE STREET
Drawing 6
KINROSS PLACE
Drawing 7
MINNAMURRA LANE
Features - street furniture not shown in Jamberoo colour palette sample pictures only
Jamberoo Colour Palette
Kalamata
Surfmist
Dune
White
Hedge in Reid Park elevation NTS
timber or concrete barrier
existing fence
proposed hedge Photinia or Buxus
Allowrie Street
existing concrete barrier
TYPICAL GARDEN CROSS SECTION
NTS
ROAD SURFACE
150mm BARRIER KERB
300mm SAND STONE RETAINING WALL
GARDEN AND GARDEN BED TO LANDSCAPE SPECIFICATIONS
300mm
VARIABLE WIDTH
200mm
300mm
200mm
BRICK PAVERS
ROAD SURFACE
KIAMA COUNCIL
Allowrie Street Jamberoo
Streetscape Upgrade - Landscape Plan
Landscape Allowrie Street
SCALES
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PLAN:
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FILE: 2321
SHEET 10 OF 10
PLAN NUMBER
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MEMORANDUM OF UNDERSTANDING (Road Reserve Restoration Work)

between
Sydney Water Corporation (ACN 276 225 038) (**"Sydney Water"**)
and
[#INSERT COUNCIL NAME] (ACN [#TNSERTACN) **("Council")**

dated: _____ 20 _____
(Sydney Water to insert date when signing overleaf)

Purpose

1. Sydney Water and the Council agree to take the steps identified in this Memorandum of Understanding (**MOU**) for the purpose of improving the time, cost and quality aspects of road reserve restoration work that is a necessary component of reactive and planned work on Sydney Water's infrastructure that affect public roads for which the Council is the Roads Authority.

2. References to Sydney Water include its authorised agents and affiliates and Sydney Water and the Council agree to be bound by the terms of this MOU.

3. All work undertaken by Council and Sydney Water shall be in accordance with the attached Key Performance Indicators (KPI's), Road Reserve Restoration Work Quality and Intervention Standard and Schedule of Miscellaneous Fees.

Notification of planned and reactive work on Sydney Water's infrastructure

4. Sydney Water agrees to notify the Council of upcoming planned work on Sydney Water's infrastructure and, as soon as practical, reactive work that has commenced on Sydney Water's infrastructure and the nature and extent of road reserve restoration work anticipated as a component of those works.

5. Council agrees to provide Sydney Water with its upcoming Capital Works Program for the purpose of coordinating planned work leading to mutual cost savings to both parties.

Procedure for determining who will carry out the road reserve restoration work

6. Sydney Water shall request a quotation from Council to conduct the final road reserve surface restoration. The request will entail sufficient detail to determine the location and scope of work to provide a quotation.

7. Council may elect to advise Sydney Water to apply the adopted Council Restoration Fees and Charges to the RFQ.

8. Should Council elect not to provide a quotation for the road reserve surface restoration, Sydney Water shall arrange the entire restoration works.

9. If Council elects to provide Sydney Water with a fixed quote for the relevant road reserve surface restoration work, it shall do so within ten (10) days.

10. Sydney Water will accept the quote if, in Sydney Water's opinion the quote is based on the agreed; technical specification, measured area; and fixed price (consistent with

current commercial market rates), in which case the road reserve surface restoration work will be carried out by the Council.

11. Should Sydney Water reject the quote, the road reserve surface restoration work will be carried out by commercial contractors engaged by Sydney Water.

Work carried out by Council

12. Council will take responsibility for all hazards associated with the site 28 days after Sydney Water issues the work to Council or the date that work commences (whichever is earlier).

13. Council will continue to be responsible for the quality of the road reserve restoration work and any hazards remaining following completion of the road reserve restoration work.

14. Where Sydney Water awards the work to Council and Council accepts responsibility for the surface restoration work, Council will aim to complete the work within 90 days.

Work carried out by commercial contractors engaged by Sydney Water

15. Sydney Water will carry out the work to the national standard NATSPEC 1152 (Road Openings and Restorations), unless agreed otherwise by Council and Sydney Water.

16. Sydney Water shall maintain direct supervision of any contractors it engages to undertake road reserve restoration work.

17. Sydney Water shall commit to completing the road reserve restoration work within 90 days.

18. The Council may, at its own cost, inspect the progress of road reserve restoration work, provided that the Council follows any reasonable site access instructions of the commercial contractor.

19. At the completion of the permanent road reserve restoration work, an inspection will be undertaken between Sydney Water and Council representatives to measure the quality of the work against the attached Road Reserve Restoration Work Quality and Intervention Standard. Any identified defects or non conformance shall be rectified by Sydney Water at no cost to Council.

20. Council's signoff of the permanent road reserve restoration shall constitute the practical completion date and the date that the road restoration is transferred back into Council's network for the commencement of the 2 year work defect liability period. Should a failure occur within the defect liability period, the 2 year defect liability period will recommence from the signoff of the rectification works.

21. Where Sydney Water requests a work scoping meeting, Sydney Water shall pay Council a RFQ Scoping and Work Quality Signoff fee as per the attached Schedule of Miscellaneous Fees to cover the scoping inspection and an inspection of the permanent restoration for the purposes of transferring the road reserve restoration back into Council's network. Where a scoping meeting is not required, Sydney Water shall pay a Work Quality Signoff Inspection fee at the completion of work. Should subsequent inspections be required, Sydney Water shall pay Council the nominated Work Quality Signoff Inspection fee.

22. Sydney Water will warrant the workmanship of the restoration work for a period of two (2) years from the date of practical completion as measured against the Road Reserve Restoration Work Quality and Intervention Standard. Any non conformance shall be rectified by Sydney Water at no cost to Council and the two (2) year defect liability period shall recommence from signoff of the rectification works.

23. Major defects identified within the defect liability period shall be made safe within 24 hours of receipt of notice by Council of the community. Permanent rectification works shall commence within 14 days.

24. Sydney Water will maintain public liability responsibility limited to an event arising from defective workmanship associated with the restoration for a period of two (2) years from the date of practical completion in line with the two (2) year defect liability period. This public liability period will be reset in the event of a failure to coincide with the defect liability period.

25. Sydney Water and Council agree to assess damage or failure of the road reserve restoration as measured against the Road Reserve Restoration Work Quality and Intervention Standard outside the two (2) year defect liability period on a case by case basis. Any identified defects or non conformance shall be rectified by Sydney Water at no cost to Council.

26. If Council becomes aware of a defect in the road reserve restoration work during the defect liability period or beyond, then Council must notify Sydney Water of the details as soon as practicable, including:

    (a) the nature of the defect

    (b) the location of the defect

Invoicing and payment

27. Where the road reserve surface restoration is carried out by Council:

    (a) Council is to provide a tax invoice to Sydney Water within 30 days of completion of the road reserve surface restoration work for the amount of the agreed fixed quotation.

    (b) Sydney Water is to pay the invoiced amount within 60 days of receiving the invoice from Council.

Review and improvement

28. Sydney Water and Council will agree on key performance indicators to measure the effectiveness of the arrangements contained in this MOU over the five (5) year period commencing on the date of this MOU.

29. Sydney Water and Council shall agree to review and update the attached Schedule of Miscellaneous Fees on an annual basis to account for price increases. Unless stated otherwise, price increases will be limited to the Consumer Price Index (CPI).

30. Any changes to the arrangements contained in this MOU including the attachments may be made at any time by mutual written agreement.

31. Sydney Water and Council commit to utilise an electronic system to administer road reserve restoration. The system is to be developed by Councils in consultation with Sydney Water and will permit the electronic communication of road reserve restoration information between parties.

Dispute resolution and termination

32. If a dispute arises in relation to road reserve restoration work, then Council and Sydney Water will make genuine efforts to resolve the dispute. If the dispute is not resolved following a minimum of two (2) meetings between authorised representatives, then the parties will undertake to resolve the dispute through a Mediation process. A qualified mediator shall be selected and appointed by mutual consent between Sydney Water and Council.

33. Should Council and Sydney Water wish to terminate this MOU by mutual consent, then the road reserve restoration process shall resort to the process prescribed by the Streets Opening Conference whereby the Utility pays a restoration fee, based on the adopted Fees and Charges, to the Roads Authority to undertake the final road reserve surface restoration.

34. Termination of the MOU shall take effect one month from the date of mutual consent.

ADDITIONAL / ALTERNATIVE DISPUTE RESOLUTION OPTION
If a dispute cannot be resolved between project management personnel, then the senior representatives must be notified of the dispute. This notification must include the following:

- dispute description
- summary position of both parties
- efforts made to negotiate the dispute to date
- implication of not resolving the dispute
- suggestions for resolving the dispute.

Where the dispute has major cost implications or is likely to generate significant public debate or has major regional or political significance, then the matter may need to be referred for resolution to the General Managers or designated senior staff.

Signed by its duly authorised representative for and on behalf of:

Sydney Water Corporation)
(ACN 776 225 038)) *Signature:* _____

Print Name: _____

and

[#INSERT COUNCIL NAME])
(ACN [#INSERT ACN)) *Signature:* _____

Print Name: _____

ATTACHMENTS

1. Key Performance Indicators
2. Schedule of Miscellaneous Fees
3. Road Reserve Restoration Work Quality and Intervention Standard

Key performance Indicators – Road Reserve Restorations for Sydney water

KPI	Sub Measures	Reporting	Comments
1. Restoration Delivery a. Completion by Sydney Water within 30 days or other specified agreed time b. Completion by Council within 90 days c. Market based pricing and or Request for Council Quote participation 30%	Number of complaints on Quality zero complaints = 100% >=3 complaints = 0%	Quarterly	
2. Quality Assurance – Workmanship and compliance with relevant standards, including technical specification 30%	Compliance with standards zero non-compliance = 100% >=3 non-compliances = 0%	Quarterly	
3. Invoice Accuracy – Error rates in pricing and other related information less than 5 percent 10%	Accuracy of invoice / month zero errors = 100% >=15 errors = 0%	Quarterly	
4. Environmental Management – Compliance with all necessary statutory and regulatory requirements, including waste disposal 10%	Compliance with environmental requirements zero non-compliance = 100% >=2 non-compliance = 0%	Quarterly	
5. Community Relations / incidents – Manage all community consultations and notifications 20%	Public complaints zero complaints = 100% >=3 complaints = 0%	Quarterly	

SCHEDULE OF MISCELLANEOUS FEES

2012/13

Description	Rate	GST	Total
Work Quality Signoff Inspection fee	$90.00	$9.00	$99.00
RFQ Scoping and Work Quality Signoff fee	$130.00	$13.00	$143.00

Note: Rates subject to annual CPI increases.

ROAD RESERVE RESTORATION WORK QUALITY AND INTERVENTION STANDARD

DECEMBER 2013

January 2013

INTRODUCTION

This Road Reserve Restoration Work Quality and Intervention Standard sets out quality standards for restoration of civil infrastructure assets.

This standard stipulates quality specifications, measurements and tolerances. Work that does not conform to the quality specifications will be deemed to be of unsatisfactory quality and require rectification.

Where a quality specification for a particular type of work or material has not been specifically included in this Standard, then industry best practice shall apply.

The quality specifications may be set / amended for a particular project subject to mutual agreement prior to commencement of work or by the responsible officers when assessing the quality of a project.

This Standard should be reviewed periodically and amended accordingly to remain current and extend its coverage.

Document History

Issue	Date	Compiled by	Changes
V.1	January 2013	Joe Ingegneri	Initial draft
V.2	March 2013	Joe Ingegneri	Amendments following consultation with Campbelltown City Council
V.3	May 2013	Joe Ingegneri	Amendments following consultation with Sydney Water
V.4	October 2013	Joe Ingegneri	Amendments following consultation with other Councils and Sydney Water
V.5	December 2013	Joe Ingegneri	Amendments to the restoration scope

RESTORATION SCOPE – SPECIAL REQUIREMENTS

Heritage Specifications

Items of heritage can be found throughout all local government areas. Each Council has differing requirements for protection and preservation of these heritage items. Any work in the vicinity or that disturbs the heritage items must be protected and preserved. These heritage elements include:

a) Footpaths with street names / local feature names
b) Footpaths and kerbs constructed from brick
c) Kerb stones made of sandstone, trachyte or blue stone
d) Kerb stones with street names
e) Brick barrel pipe drains
f) Sandstone retaining walls
g) Brick retaining walls
h) Plaques, memorials and public art
i) Heritage and significant trees

Where any of these features are present in the vicinity of the work site, Council's requirements for such items are to be sought by the contractor prior to commencement of work.

Road Pavements

Asset	Conditions	Requirement
Flexible Pavement	Trench in vehicle travel lane	Reinstatement to extend a minimum of 0.3m beyond the excavation. It is recommended that longitudinal joints remain clear of a wheel path. Width of remaining surface adjacent to the gutter not to be less than 0.5m.
	Patch in vehicle travel lane	Reinstatement to extend a minimum of 0.3m beyond the excavation in all directions. Width of remaining surface adjacent to the gutter not to be less than 0.5m.
	Trench in full time parking lane	Reinstatement to extend a minimum of 0.3m beyond the excavation in all directions. Width of remaining surface adjacent to the gutter not to be less than 0.5m.
	Patch in full time parking lane	Reinstatement to extend a minimum of 0.3m beyond the excavation in all directions. Width of remaining surface adjacent to the gutter not to be less than 0.5m.
Rigid Pavement	Unreinforced plain concrete.	Reconstruct the full slab. Minimum thickness of the slab to be 250mm or match existing slab if thicker than 250mm.
	Reinforced concrete	Reconstruct new reinforced slab 0.5m wider than the excavation or to the nearest joint if the remaining dimension of slab is less than 1m. New concrete slab to be doweled along all edges at maximum 600mm centres.
Segmental Pavements	Segmental road pavement.	The base for reinstatement of segmental pavers is to extend a minimum of 300mm beyond the excavation in all directions. Pavers shall be reinstated to the next paver joint greater than 0.3m beyond the excavation.

Notes

1. The asphalt pavement stone size and bitumen specification is to match the existing wearing course.

2. The thickness of the asphalt wearing course is to be at least the same thickness wearing course of the existing pavement.

3. The seal type is to match the existing seal. E.g. 1 coat seal or 2 coat seal.

4. The finish of the concrete slab for rigid pavements is to match the finish of the existing rigid pavement.

5. Subgrade, subbase or base coarse shall be compacted to a minimum 95% of standard dry maximum density.

6. Any linemarking and RPMs removed to conduct the Utility work shall be reinstated.

7. Service manholes shall be replaced flush with final surface levels.

8. Reinstated pavers shall be set on the new base in the same pattern, level and finish to match existing pavers.

9. Where pavers were mortared to the base, they shall be reinstated on a mortar bed.

10. If there is doubt over the specifications and requirements, please seek clarification from Council's officer.

Footpaths and Cycleways

Asset	Conditions	Requirement
Concrete Pavement (Plain, coloured, stencilled, stamped, exposed aggregate etc)	Footpath width is up to 1.5m	Reinstate concrete surface to the nearest edge, control joint or expansion joint in all directions beyond the excavation.
	Footpath width over 1.5m	Reinstatement to extend a minimum of 0.3m beyond the excavation in all directions to a minimum width of 1.5m and to the nearest edge, control joint or expansion joint. Width of remaining footpath surface adjacent to a joint, the property boundary and / or kerb not to be less than 1m.
	Cycleway	Reinstatement to extend a minimum of 0.3m beyond the excavation in all directions. The reinstatement shall extend a minimum from the edge of the cycleway to the centreline. The width of the remaining cycleway surface to the nearest edge or joint is not to be less than 0.5m.
Asphalt pavement (plain, stencilled, coloured, coated)	Footpath	Reinstatement to extend a minimum of 0.3m beyond the excavation in all directions. Width of remaining footpath surface adjacent to a joint, the property boundary and / or kerb not to be less than 0.5m.
	Cycleway	Reinstatement to extend a minimum of 0.3m beyond the excavation in all directions. The reinstatement shall extend a minimum from the edge of the cycleway to the centreline. The width of the remaining cycleway surface to the nearest edge or joint is not to be less than 0.5m.
Segmental paving / tiles	Footpath – Segmental paver on a concrete base	The base for reinstatement of segmental pavers is to extend a minimum of 300mm beyond the excavation in all directions. Pavers shall be reinstated to the next paver joint greater than 0.3m beyond the excavation.
	Footpath – Segmental paver on a sand base	The sand base shall consist of 50mm thick sand cement bedding with a mix ratio of 1:1 under a 30mm sand bed for pavers. Pavers shall be reinstated to the next paver joint greater than 0.3m beyond the excavation.
	Footpath – Tile on a concrete base	The base for reinstatement of segmental pavers is to extend a minimum of 0.3m beyond the excavation in all directions.

Notes

1. For the table above, width is measured in a direction perpendicular to the road centreline or direction of travel.

2. The thickness of the concrete pavement is to match the existing pavement thickness.

3. Where the existing footpath or cycleway is reinforced, reinstate the pavement using F72 reinforcement.

4. The finish of the concrete pavement is to match the finish of the existing pavement for texture, pattern, colour and joint pattern. Where finish cannot be matched, replace entire panel.

5. The asphalt pavement stone size and thickness is to match the existing pavement.

6. The asphalt colour coating and pattern is to match the existing pavement.

7. Reinstated pavers are to match the existing paver colour and texture and set on the new base in the same pattern, level and finish to match the existing surface pattern. If the paver cannot be matched, paver selection shall be in consultation with Council.

8. Where pavers were mortared to the base, they shall be reinstated on a mortar bed.

9. The reinstated pavers shall be grouted where the existing paver joints are grouted.

10. Tiles are to be reinstated on a rigid concrete base slab with saw cuts in the base slab to coincide precisely with tile joints. Tile joints in the base slab are to be filled using a flexible silicon joint sealer.

11. Subgrade, subbase or base coarse shall be compacted to a minimum 95% of standard dry maximum density.

12. Any signs or street furniture removed to conduct the Utility work shall be reinstated.

13. Any linemarking along cycleways removed to conduct the Utility work shall be reinstated.

14. Service manholes shall be replaced flush with final surface levels.

15. If there is doubt over the specifications and requirements, please seek clarification from Council's officer.

Kerbs, gutters, kerb laybacks, kerb ramps, median kerbs

Asset	Conditions	Requirement
Kerbs and median kerbs	For segmental kerbs	Reinstate the full segment.
	For cast in-situ kerb and integral kerb and gutter	Reinstate a minimum length of 1.8m with one edge abutting an existing joint and no remaining kerb segment being less than 1.8m.
Kerb Layback	Where the width of the vehicular crossing is less than or equal to 3.6m	Reinstate the full width of the layback.
	Where the width of the vehicular crossing is greater than 3.6m	Reinstate at least 1.8m of the layback with one edge abutting an existing joint and no remaining segment to be less than 1.8m
Kerb ramp	Concrete	Reinstate the entire ramp including tactile pavers where fitted.
Dishgutter	Concrete dishgutter	Reinstate a minimum length of 1.8m with one edge abutting an existing joint. No remaining gutter segment to be less than 1.8m.

Notes

1. For the table above, length is defined as the dimension along the kerb or gutter centreline.

2. The dimensions of the concrete elements shall match the dimensions of existing elements.

3. The finish of the kerb, gutter and dishgutter concrete surface shall be a steel trowel finish.

4. The kerb ramp finish shall match the existing pavement for texture, pattern, colour and joint pattern.

5. Where concrete work abuts asphalt paving, an asphalt restoration 0.5m wide shall be undertaken along the concrete edge.

6. Subgrade, subbase or base coarse shall be compacted to a minimum 95% of standard dry maximum density.

7. Any signs, linemarking or street furniture removed to conduct the Utility work shall be reinstated.

8. Service manholes shall be replaced flush with final surface levels.

9. If there is doubt over the specifications and requirements, please seek clarification from Council's officer.

Vehicular Crossings

Asset / Surface	Conditions	Requirement
Coloured, pattern or stamped concrete finish	Excavation within the boundary strip, footpath section or apron	Reconstruct the entire panel comprising the full width of the vehicular crossing extending to the construction joints.
Plain concrete surface	Excavation within boundary strip	Reconstruct the boundary strip panel between the property boundary and the back of path to a minimum of half the width of the vehicular crossing ensuring that no remaining slab is less than 1.5m in length.
	Excavation in the footpath section of the vehicular crossing	Reconstruct the full extent between front of path and rear of path for a length commencing at the edge of the vehicular crossing and no less than half the width of the vehicular crossing. The remaining segment of footpath to not be less than 1.5m.
	Excavation within the apron of the vehicular crossing (footpath to layback)	Reconstruct the slab for the full length between the layback and the footpath and no less than half the width of the vehicular crossing.

Notes

1. For the table above, the width of the vehicular crossing is equivalent to the dimension of the vehicular crossing along the property boundary.

2. The thickness of the concrete pavement is to match the existing pavement thickness.

3. Where the existing vehicular crossing is reinforced, reinstate the pavement using 1 layer of F72 reinforcement mesh for residential properties, a layer of F82 reinforcement mesh for residential flat buildings and 2 layers of F82 reinforcement mesh for commercial properties.

4. The finish of the concrete pavement is to match the finish of the existing pavement for texture, pattern, colour and joint pattern. Where finish cannot be matched, replace entire panel.

5. Subgrade, subbase or base coarse shall be compacted to a minimum 95% of standard dry maximum density.

6. Service manholes shall be replaced flush with final surface levels.

7. If there is doubt over the specifications and requirements, please seek clarification from Council's officer.

Traffic Facilities

Asset / Surface	Conditions	Requirement
SM Median kerb and SF Barrier Kerb	Cast in-situ kerb	Reconstruct a minimum length of 1.8m with one edge abutting an existing joint and no remaining kerb segment being less than 1.8m.
Traffic Island Infill	Plain, stencilled, coloured or coated concrete	Reconstruct the full width of the traffic island to the nearest control joint. No remaining surface segment to be less than 1m.
Roundabout Centre Island	Trench or patch through the concrete apron	Reconstruct the full width of the apron and extending at least 0.3m beyond the excavation. Joints to be a radial alignment from the centre of the island.
	Trench or patch in the central pavement (Plain, stencilled, coloured or coated concrete)	Reconstruct pavement at least 0.3m beyond the excavation and no less than half the area of the central island pavement. No remaining surface to have a dimension less than 1m.
	Landscaped area	Determine planting requirements with Council.
Raised Threshold	Patch in concrete ramp	Reconstruct the full width of the ramp and 0.3m beyond excavation.
	Trench in concrete ramp	Reconstruct concrete ramp 0.3m beyond excavation. No remaining portion of the ramp to have a dimension less than 1m.
	Trench of patch within raised concrete pavement (Plain, stencilled, coloured or coated concrete)	Reconstruct the full width of the pavement between the ramps extending a minimum of 0.3m beyond the excavation.
	Trench of patch within raised platform comprising segmental pavers on a	The base for reinstatement of segmental pavers is to extend a minimum of 300mm beyond the excavation in all directions. Pavers shall be reinstated to the next paver joint greater than 0.3m beyond

	concrete base	the excavation.
Speed hump	Watts profile	See requirements for road pavements.
	Plastic / rubber speed humps or cushions	Replace whole element.

Notes

1. For the table above, width is defined as the smaller of the two dimensions that comprise the area.

2. The thickness of concrete pavement is to match the existing pavement thickness.

3. Where the existing pavement is reinforced, reinstate the pavement using F72 reinforcement.

4. The finish of the concrete pavement is to match the finish of the existing pavement for texture, pattern, colour and joint pattern. Where finish cannot be matched, replace entire panel.

5. Reinstated pavers are to match the existing paver colour and texture and set on the new base in the same pattern, level and finish to match the existing surface pattern. If the paver cannot be matched, paver selection shall be in consultation with Council.

6. Where pavers were mortared to the base, they shall be reinstated on a mortar bed.

7. The reinstated pavers shall be grouted where the existing paver joints are grouted.

8. Where concrete work abuts asphalt paving, an asphalt restoration 0.5m wide shall be undertaken along the concrete edge.

9. Subgrade, sub base or base coarse shall be compacted to a minimum 95% of standard dry maximum density.

10. Kerbs, ramps and roundabout aprons shall be painted with reflective thermoplastic paint.

11. Linemarking and signs removed by the excavation are to be reinstated.

12. Service manholes are to be replaced flush with final surface levels.

13. If there is doubt over the specifications and requirements, please seek clarification from Council's officer.

WORK QUALITY SPECIFICATIONS

ROAD PAVEMENTS

Road Pavements – Flexible (Asphaltic Concrete or Spray Seal Surface)

	Quality Specifications	Tolerance	☑
1	Restoration has clean unbroken edges along the trench or patch	<5% of the length of the trench has edge breaks	
2	Reinstatement surface levels along the edge are flush with the adjacent pavement	No step greater than 5mm	
3	The shape of the reinstatement surface matches the road cross section	• The restoration follows the existing road cross section profile to within ±10mm • The work does not create vehicular scraping at vehicular crossings	
4	No depression in the restoration surface	Departure of surface from a taught stringline placed across the trench does not deviate by ±10mm	
5	The restoration wearing course is free of rutting	<1% of restoration affected and not greater than an area exceeding 10m^2	
6	The restoration wearing course is free of ravelling	<1% of restoration affected and not greater than an area exceeding 10m^2	
7	The restoration wearing course is free of shoving	<1% of restoration affected and not greater than an area exceeding 10m^2	
8	The restoration wearing course is free of potholes	100% compliance	
9	The restoration wearing course is free of cracks wider than 1mm	• No single crack longer than 0.5m • No block cracking or crocodile cracking	
10	The restoration asphaltic concrete wearing course specification matches the existing wearing course surface	Aggregate size matches adjacent pavement	
11	No joint separation between the new and existing asphalt	Width of joint not to exceed 2mm	
12	Pavement markings including RPMs are reinstated to the same standard and as per the removed pavement markings	100% compliance	
13	Signal detectors are reinstated correctly including sealant	100% compliance	
14	The service manholes are seated flush with the road surface	No step greater than 10mm on a constant grade	
15	All sign posts removed during the work are reinstated	100% compliance	

Road Pavements – Rigid (Plain Concrete, Coloured Concrete, Patterned Concrete or Asphaltic Concrete Surface)

	Quality Specifications	Tolerance	☑
16	Restoration has clean sawcut edges along the trench or patch	<5% of the length of the trench has edge break of greater than 30mm	
17	Surface levels along the edge are flush with the adjacent pavement	No step greater than 10mm	
18	The shape of the trench follows the road cross section	• The restoration follows the existing road cross section profile to within ±10mm • The work does not create vehicular scraping at vehicular crossings	
19	No depression in the restoration surface	When measured with a 3m straight edge across the trench, departures are less than ±10mm	
20	The restoration surface finish matches specifications and /or adjacent concrete surface finish	90% compliance	
21	The restoration surface is free of cracking	<1% of restoration affected and crack length not to exceed a total length of 25m	
22	Severity of cracks present is moderate	Width of cracks does not exceed 3mm	
23	Concrete joints are present as per the existing surface specifications including placement of an elastic sealant	90% compliance and <1% of joint seal defective	
24	Concrete surface is free of dusting	90% compliance	

25	No spalling at joints and cracks	<5% of spalling of up to 30mm in size throughout restoration	
26	Concrete strength specification is adequate	Certificates provided to confirm the use of 32 MPa concrete as per RMS specifications	
27	Pavement markings including RPMs are reinstated to the same standard and as per the removed pavement markings	100% compliance	
28	Signal detectors are reinstated correctly including sealant	100% compliance	
29	All sign posts removed during the work are reinstated	100% compliance	

Road Pavements – Segmental Paving Surface

	Quality Specifications	Tolerance	☑
30	Surface levels where restoration meets existing road surface are flush with adjacent road levels	No step greater than 5mm	
31	The shape of the reinstatement surface follows the road cross section	• The restoration follows the existing road cross section profile to within ±10mm • The work does not create vehicular scraping at vehicular crossings	
32	No depression in the restoration surface	When measured with a 3m straight edge across the trench, departures are less than ±10mm	
33	The reinstated paver matches the adjacent pavers	90% compliance	
34	Concrete base layer is reinstated	100% compliance	
35	Pavers installed on a mortar bed are reinstated on a mortar bed	100% compliance	
36	Joints are grouted as per the existing paving surface	<5% of joints have spalling mortar joints	
37	No broken, cracked or painted pavers placed in the restored area	100% compliance	
38	Any pre-existing joints including elastic sealant are reinstated	100% compliance	
39	Paving adjacent to kerb and gutter is finished flush	No Step greater than 5mm	
40	Service manholes are installed flush with the surface	No step around the manhole greater than 5mm	
41	Pavement markings including RPMs are reinstated to the same standard and as per the removed pavement markings	100% compliance	
42	Signal detectors are reinstated correctly including sealant	100% compliance	

FOOTPATHS

Footpaths and Cycleways - Concrete

	Quality Specifications	Tolerance	☑
1	Full width slab is restored where existing footpath width is less than or equal to 1.5m and remaining width is not less than 1m	100% compliance	
2	The footpath has a cross fall gradient of 2.5% towards road carriageway	80% compliance	
3	The footpath cross fall gradient does not exceed 5%	90% compliance	
4	Expansion joints are present at the extent of work and at every 6m longitudinally	100% compliance	
5	The reinstatement has clean sawcut edges	<2% of the length of the trench has edge break of greater than 30mm	
6	The surface levels where the reinstatement meets the existing footpath are flush with adjacent footpath	No step greater than 5mm	
7	No water ponding on the footpath surface unless at a sag point	90% compliance	
8	The surface finish is a broom finish or wooden float finish in direction of longest edge.	100% compliance	
9	Transverse contraction joints (dummy joints) are installed at 1.2m intervals	90% compliance	
10	Concrete surface is free of dusting	90% compliance	
11	No spalling at joints	<5% of spalling of up to 30mm in size throughout restoration	
12	Concrete strength specification is adequate	Certificates provided to confirm the use of 25 MPa concrete	
13	The restoration surface is free of cracking	<1% of restoration affected	
14	Severity of cracks present is moderate	Width of cracks does not exceed 2mm	
15	The restoration work has not damaged adjacent property fencing, paving or tiled steps	100% compliance	
16	Service manholes are installed flush with the surface	No step around the manhole greater than 5mm	
17	The nature strip or boundary strip adjacent to new concrete footpath or cycleway is backfilled and matches the top of the new concrete surface	No step greater than 10mm	
18	The extent of disturbed nature strip or boundary strip is reinstated with turf rolls and the turf established	100% compliance	

Footpaths and Cycleways - Segmental Pavers

	Quality Specifications	Tolerance	☑
19	Surface levels where the reinstatement meets the existing footpath are flush with adjacent footpath	No step greater than 5mm	
20	The footpath has a cross fall gradient of 2.5% towards road carriageway	80% compliance	
21	Footpath cross fall gradient does not exceed 5%	90% compliance	
22	Existence of expansion joints at extent of work and at every 6m	100% compliance	
23	Concrete base layer is reinstated	100% compliance	
24	Pavers installed on a mortar bed are reinstated on a mortar bed	100% compliance	
25	Joints are grouted as per the existing paving surface	<5% of joints have spalling mortar joints	
26	No broken, cracked or painted pavers placed in the restored area	100% compliance	
27	A sealant is applied if adjacent surface is sealed	100% compliance	
28	No depression in the restoration surface	When measured with a 3m straight edge in both directions, departures are less than ±5mm	
29	Any pre-existing joints including elastic sealant are replaced	100% compliance	
30	Paving adjacent to kerb and gutter is finished flush	No Step greater than 3mm	
31	Restoration work has not resulted in damage to adjacent private property assets	100% compliance	

32	Service manholes are installed flush with the surface	No step around the manhole greater than 5mm	
33	The nature strip or boundary strip adjacent to new concrete footpath or cycleway is backfilled to match the top of the new concrete surface	No step greater than 10mm	
34	The extent of disturbed nature strip or boundary strip is reinstated with turf rolls and the turf established	100% compliance	
35	Asphalt around power poles is reinstated	100% compliance	
36	Street furniture is reinstated	100% compliance	
37	Sign posts are reinstated	100% compliance	

Footpaths and Cycleways - Asphaltic Concrete

	Quality Specifications	Tolerance	☑
38	Full width footpath is restored where existing footpath width is less than or equal to 1.5m and remaining width is not less than 1m	100% compliance	
39	The restoration has clean unbroken edges along the trench	<5% of the length of the trench has edge breaks	
40	Surface levels along the reinstated edge are flush with the adjacent pavement	No step greater than 10mm	
41	The shape of the trench cross section follows the footpath cross section prior and following the work	• The restoration follows the existing footpath cross section profile to within ±10mm • The work does not create vehicular scraping at vehicular crossings	
42	No depression in the restoration surface	Departure of surface from a taught stringline placed across the trench does not deviate by ±10mm	
43	The restoration surface is free of rutting	<1% of restoration affected and not greater than an area exceeding 10m^2	
44	The restoration surface is free of ravelling	<1% of restoration affected and not greater than an area exceeding 10m^2	
45	The restoration surface is free of shoving	<1% of restoration affected and not greater than an area exceeding 10m^2	
46	The restoration surface is free of potholes	100% compliance	
47	The reinstated wearing course is free of cracks wider than 1mm	• No single crack longer than 0.5m • No block cracking or crocodile cracking	
48	The restoration asphaltic concrete stone specification matches the existing surface	Aggregate size matches adjacent pavement	
49	No joint separation between the new and existing asphalt	Width of joint does not exceed 2mm	
50	Pre existing linemarking is reinstated using the same type of materials	100% compliance	
51	Outdoor dining markers (Randwick Council uses brass plates) are reinstated	100% compliance	
52	The nature strip or boundary strip adjacent to new concrete footpath or cycleway is backfilled and matches the top of the new concrete surface	No step greater than 10mm	
53	The extent of disturbed nature strip or boundary strip is reinstated with turf rolls and the turf established	100% compliance	
54	Service manholes are installed flush with the footpath surface	No Step greater 10mm	
55	All sign posts removed during the work are reinstated and orientated correctly	100% compliance	
56	Signs damaged during the work are replaced	100% compliance	

Footpaths – Kerb Ramps

	Quality Specifications	Tolerance	☑
57	Kerb ramp profile matches council specification, Australian standards and provisions of the Disability Discrimination Act 1992	100% compliance	
58	Existing tactile paving is reinstated	100% compliance	
59	The kerb ramp surface matches other kerb ramps in footpath segment	100% compliance	

Footpaths - Stairs

	Quality Specifications	Tolerance	☑
60	Step treads and risers comply with the Australian Standards	100% compliance	
61	The full flight of stairs is replaced	100% compliance	
62	Concrete strength specification is adequate	Certificates provided to confirm the use of 32MPa concrete	
63	The handrail is reinstated using the same material and complies with the Australian Standards for location and height	100% compliance	

Footpaths - Unformed Grass Surface

	Quality Specifications	Tolerance	☑
64	Surface levels where restoration meets existing unformed footway are flush	No Step greater 10mm	
65	Surface is top dressed, turfed using turf rolls and established for the entire disturbed area	100% compliance	
66	No depression in the restoration surface	Deviation from a 3m straight edge placed across the restoration in both directions does not vary by ±20mm	

KERB AND GUTTER

Kerb and Gutter - Integral Concrete

	Quality Specifications	Tolerance	☑
1	The height and profile of the kerb and gutter is uniform and consistent with Council specifications	90% compliance	
2	The height and profile of the layback is uniform and consistent with Council specifications	90% compliance	
3	The surface finish is a steel float finish	100% compliance	
4	All private roof water outlets are connected flush with the face of kerb and the invert matches the gutter invert	100% compliance	
5	The start and end of segments have been sawcut	100% compliance	
6	Expansion joints are present at the start, end and at maximum spacing of 6m	100% compliance	
7	Expansion material consists of bituminous filler 10mm thick	100% compliance	
8	Any hard stand pavement at rear of kerb is separate from the new kerb, flush and includes an expansion joint	100% compliance	
9	Contraction joints (dummy joints) are present at maximum spacing of 3m	90% compliance	
10	Water does not pond in the new gutter	100% compliance	
11	The nature strip at the back of kerb is backfilled and matches the top of kerb level	No step greater than 10mm	
12	The extent of disturbed nature strip is reinstated with turf rolls and the turf established	100% compliance	
13	Nature strip batter at rear of the kerb is restored with a suitable transition that does not exceed 12% between new and existing grades.	90% compliance	
14	The kerb and gutter is free of cracks outside the contraction joints	< 3 cracks per 10m	
15	The severity of cracks is moderate	Cracks no wider than 2mm	
16	An asphalt restoration 0.6m wide (for minimum compaction plate) along the new gutter is present	100% compliance	
17	Asphalt restoration is flush with the lip of gutter and to the quality standards outlined in road pavements	No step greater than 10mm	
18	The concrete road pavement has been restored flush with the lip of gutter	No step greater than 5mm	

Kerb and Gutter - Sandstone / Brick

	Quality Specifications	Tolerance	☑
19	The sandstone kerb stone or brick kerb is flush with the adjacent kerb	No step greater than 5mm	
20	The sandstone gutter stones are flush with the adjacent gutter	No step greater than 5mm	
21	No ponding is present along the restored gutter	100% compliance	
22	The nature strip at the back of kerb is backfilled and matches the top of kerb level	No step greater than 10mm	
23	Nature strip batter at rear of the kerb is restored with a suitable transition that does not exceed 12% between new and existing grades	90% compliance	
24	The extent of disturbed nature strip is turfed with turf rolls and the turf established	100% compliance	
25	An asphalt restoration 0.5m wide (for suitable compaction plate) along the new gutter is present	100% compliance	
26	Asphalt restoration is flush with the lip of gutter and to the quality standards outlined in road pavements	No step greater than 5mm	
27	The concrete road pavement has been restored flush with the lip of gutter	No step greater than 5mm	
28	All private roof water outlets are connected flush with the face of kerb and the invert matches the gutter invert	100% compliance	

VEHICULAR CROSSINGS

Vehicular Crossings - Concrete

	Quality Specifications	Tolerance	☑
1	The restoration surface finish matches Council specifications and / or adjacent surface finish	90% compliance	
3	Thickness of the concrete is to be as per Council's standard corresponding to domestic, commercial or heavy duty specifications	100% compliance	
4	Sawcutting is straight, clean and undertaken along an expansion or contraction joint	90% compliance	
5	The restoration surface finish is a broom finish or wooden float finish	100% compliance	
6	The height and profile of the layback is uniform and consistent with Council specifications	90% compliance	
7	The surface finish of the layback is a steel float finish	100% compliance	
8	The restoration surface levels match the adjacent / existing surfaces	No step greater than 5mm	
9	There are no depressions in the surface	Deviation from a straight edge placed across the restoration in both directions does not vary by ±5mm	
10	The nature strip or boundary strip adjacent to new concrete footpath or cycleway is backfilled and matches the top of the new concrete surface	No step greater than 10mm	
11	The extent of disturbed nature strip or boundary strip is reinstated with turf rolls and the turf established	100% compliance	

Vehicular Crossings - Segmental Pavers

	Quality Specifications	Tolerance	☑
12	The restoration surface levels match the adjacent / existing footpath	No step greater than 5mm	
13	The footpath has a crossfall gradient of 2.5% towards road carriageway	80% compliance	
14	The footpath crossfall gradient does not exceed 5%	90% compliance	
15	Existence of expansion joints at extent of work and at every 6m	100% compliance	
16	Concrete base layer is reinstated	100% compliance	
17	Pavers previously installed on a mortar bed are reinstated on a mortar bed	100% compliance	
18	Joints are grouted as per the existing paving surface	<5% of joints have spalling mortar joints	
19	No broken, cracked or painted pavers placed in the restored area	100% compliance	
20	A sealant is applied to the new pavers if the surface was previously sealed	100% compliance	
21	No depression in the restoration surface	When measured with a 3m straight edge, departures are less than ±5mm	
22	Any pre-existing joints including elastic sealant are replaced	100% compliance	
23	Paving adjacent to kerb and gutter matches the top of kerb levels	No Step greater than 3mm	
24	Restoration does not damage adjacent property fencing or tiled steps	100% compliance	
25	Service manholes are installed flush with the surface	No step around the manhole greater than 5mm	
26	The nature strip or boundary strip adjacent to new concrete footpath or cycleway is backfilled and matches the top of the new concrete surface	No step greater than 10mm	
27	The extent of disturbed nature strip or boundary strip is turfed with turf rolls and the turf established	100% compliance	
28	Asphalt around power poles is reinstated	100% compliance	
29	Street furniture is reinstated	100% compliance	
30	Sign posts are reinstated	100% compliance	

Vehicular Crossings - Asphaltic Concrete

	Quality Specifications (per vehicular crossing)	Tolerance	☑
31	Restoration has clean unbroken edges along the trench / cut	<5% of the length of the trench has edge breaks	
32	Surface levels along the edge match the adjacent pavement	No step greater than 5mm	
33	The shape of the reinstated surface cross section follows the footpath cross section prior and following the work	• The restoration follows the existing footpath and vehicular crossing cross section profile to within ±10mm • The work does not create any vehicular scraping	
34	No depression in the restoration surface	Departure of surface from a taught string line perpendicular to the direction of vehicular travel does not deviate by ±10mm	
35	The restoration surface is free of rutting	<1% of restoration affected and not greater than an area exceeding 1m^2	
36	The restoration surface is free of ravelling	<1% of restoration affected and not greater than an area exceeding 1m^2	
37	The restoration surface is free of shoving	<1% of restoration affected and not greater than an area exceeding 1m^2	
38	The restoration surface is free of potholes	100% compliance	
39	The restoration wearing course is free of cracks wider than 1mm	• No single crack longer than 0.5m • No block cracking or crocodile cracking	
40	The restoration asphaltic concrete stone specification matches the existing surface	Aggregate size matches adjacent pavement	
41	No joint separation between the new and existing asphalt	Width of joint does not exceed 2mm	
42	Pre existing linemarking is reinstated using the same type of materials	100% compliance	
43	Outdoor dining markers (Randwick Council uses brass plates) are reinstated	100% compliance	
44	The nature strip or boundary strip adjacent to new concrete footpath or cycleway is backfilled and matches the top of the new concrete surface	No step greater than 10mm	
45	The extent of disturbed nature strip or boundary strip is reinstated with turf rolls and the turf established	100% compliance	
46	Service manholes are installed flush with the surface	No step greater 10mm	
47	All sign posts and / or signs removed during the work are reinstated and orientated correctly	100% compliance	
48	Signs and / or sign posts damaged during the work are replaced	100% compliance	

Vehicular Crossings - Unformed Grass Surface

	Quality Specifications	Tolerance	☑
49	Surface levels where the restoration meets existing unformed footway match existing levels	No step greater 10mm	
50	Surface is top dressed, turfed using turf rolls and established for the entire disturbed area	100% compliance	
51	No depression in the restoration surface	When measured with a 3m straight edge across the surface, departures are less than ±10mm	

TRAFFIC FACILITIES

All Traffic Facilities

	Quality Specifications	Tolerance	☑
1	The height and profile of median kerbs and barrier kerbs gutter is uniform and consistent with RMS and Council specifications	90% compliance	
2	The surface of the kerb is painted with white reflective thermoplastic paint to match existing	100% compliance	
3	The start and end of segments of the kerb have been sawcut	100% compliance	
4	Expansion joints are present at the start and end of the reinstated kerb segment	100% compliance	
5	Expansion material consists of bituminous filler 10mm thick	100% compliance	
6	The reinstated kerb is doweled or keyed into the road pavement	90% compliance	
7	The kerb is free of cracks outside the contraction joints	90% compliance	
8	The reinstated island infill surface finish matches specifications and /or adjacent concrete surface finish	90% compliance	
9	The island infill at the rear of kerb is separate from the new kerb, flush and includes an expansion joint	100% compliance	
10	The restoration surface finish is a broom finish or wooden float finish	100% compliance	
11	The restoration surface levels match the adjacent kerb / existing surfaces	No step greater than 5mm	
12	The reinstated apron of the roundabout centre island has a matching lip and profile consistent with the existing island	90% compliance	
13	There are no depressions in the surface	Deviation from a straight edge placed across the restoration in both directions does not vary by ±5mm	
14	The reinstated surface is free of cracking	<1% of restoration affected	
15	Severity of cracks present is moderate	Width of cracks does not exceed 3mm	
16	Concrete joints are present as per the existing surface specifications	90% compliance	
17	Concrete surface is free of dusting	90% compliance	
18	No spalling at joints	<2% of spalling of up to 30mm in size throughout restoration	
19	Concrete strength specification is adequate	Certificates provided to confirm the use of 25 MPa concrete	
20	Pavement markings including RPMs are reinstated to the same standard as per the removed pavement markings	100% compliance	
21	All sign posts and signs removed during the work are reinstated	100% compliance	
22	Landscaped islands – the reinstated soil level matched the top of kerb	No step greater than 20mm	
23	Landscaped islands - The number and type of plant species is the same as prior to disturbance	100% compliance	
24	Landscaped islands - The restoration area is mulched	100% compliance	
25	Landscaped islands - The planting is established	100% compliance	

OPEN SPACE ASSETS

Open Space Assets - Unformed Grass Surface

	Quality Specifications	Tolerance	☑
1	Restoration surface levels match existing surface levels	No Step greater 10mm	
2	Surface is top dressed and turfed with turf rolls for the entire disturbed area	100% compliance	
3	The turf is established	100% compliance	
4	No depression in the restoration surface	When measured with a 1m straight edge across the top of any part of the restoration, departures are less than ±15mm	

Open Space Assets - Landscaping

	Quality Specifications	Tolerance	☑
5	The reinstated soil is at the level of the landscaping prior to disturbance	No step greater than 20mm	
6	The restoration area is mulched	100% compliance	
7	The number and type of plant species is the same as prior to disturbance	100% compliance	
8	The planting is established	100% compliance	

Open Space Assets - Street Furniture

	Quality Specifications	Tolerance	☑
9	Street furniture is replaced and is secured properly	100% compliance	

Open Space Assets - Handstand Areas

	Quality Specifications	Tolerance	☑
10	The quality meets standards set out for footpaths	100% compliance	

23 Kalang Road
KIAMA HEIGHTS NSW 2533
25th March 2014.

The General Manager
Kiama Municipal Council
PO Box 75
KIAMA NSW 2533.

Dear Sir,

Re: Walking Tracks and Cycleways Committee-Expressions of Interest.

I note with interest your notice in The Kiama Independent of 19th March 2014 relative to Expressions of Interest in the above committee.

As a keen walker and cyclist I would like to advise my interest in being part of this committee. I have been a regular walker in the Kiama Municipality for many years and would be interested in promoting any ideas for new walking paths in our area.

I am also a keen cyclist usually riding 3 days each week, and have ridden most of the cycleways between The Royal National Park and Nowra. I am a committee member and ride leader of Kiama Bike Users Group and also a member of Bicycle NSW, the main organisation representing cyclists in New South Wales. The introduction of additional cycleways and shared paths is always of interest to me. Anything that promotes a healthy life style needs to be promoted.

It is very pleasing to see that Kiama Municipal Council has begun work on extending the Gainsborough shared path/cycleway along Swamp Road.

As a local with 43 years residency in Kiama I consider that if successful I could make a valuable contribution to this committee.

Yours sincerely

Barry Booth.
Booth.rl.sl@westnet.com.au

Affiliated with

24 March 2014

The General Manager
Kiama Municipal Council
PO Box 75
Kiama
NSW 2533

RE: Kiama Walking Tracks and Cycleways Committee - Expressions of Interest

Dear Sir,

I write to you on behalf of Kiama Bicycle Users Group (Kiama BUG), in regard to your call for expression of interest for membership to the Kiama Walking Tracks and Cycleways Committee. As you would be aware, John Tomlinson was Kiama BUG's representative on this committee until his very recent retirement.

I should also mention that Kiama BUG is a not-for-profit organisation representing well over 100 cyclists within the Kiama and the Illawarra and is an affiliated member of Bicycle NSW. Many of our cyclists use the local cycling infrastructure and facilities in the area on a daily basis. Of course, our primary focus is to promote safe cycling in all its forms as a way of improving the health and wellbeing of our communities. Our objectives align with the government's objectives of increasing active transport, such as cycling and walking, as an important part of the transport mix in NSW. We are aware of the improvements this can bring to the health of our citizens and to the wellbeing of those in our communities. We also believe because of our active involvement in the region in active transport that we have much to offer the Kiama Walking Tracks and Cycleways Committee.

We have canvassed our membership regarding those who would be prepared to actively participate on this committee as representatives of Kiama BUG. We received two nominations, Barry Booth who is a very long term member of the local community with well over 40 years of active service within the Kiama community. Larry Parkes is our other nomination. While Larry was schooled in Kiama he has had quite an absence from the region and has only returned in the last number of years. Both nominations are keen cyclists and take an interest in walking and cycling tracks within the region, from the National Park to Nowra. We understand that council only wish to fill one vacancy and of course are free to choose whichever candidate they wish.

We have a significant interest in safe shared paths and cycling routes and recognise that these safe route assist to promote tourism opportunities, which provide economic benefits for the whole community. These factors are things which we value highly and which we strongly support in our local area. Both our nominations have very strong links into the local cycling community and can draw on these resources to assist the committee with proposals and deliberations.

We sincerely believe that either candidate would be a valuable addition to the Kiama Walking Tracks and Cycleways Committee. We trust that you will consider our nominations favourably.

Yours sincerely

Larry Parkes
Secretary Kiama BUG.
larry.parkes@gmail.com
cc - Community Correspondence File

www.kiamabug.org.au info@kiamabug.org.au 117 Bland Street, Kiama, NSW, 2533.

Attention Manager Design and Development

Hi,

My name is Barry Mann, and I am a Kiama resident, living in Elouera Place. I have lived here for over 3 years, previously residing in the Sutherland Shire at Grays Point. My parents lived in Kiama for some 30 years....both have since died.

I am 70 years old (next June), and retired 3 years ago from an Electrical Engineering career.

My wife and I are currently active members of the Sutherland Bushwalking Club, joining over 12 years ago. As such, we have been aware of and participated in and lead numerous walks in the Royal National Park, Illawarra Escarpement, Blue Mountains and South Coast area of NSW. We also regularily take trips to other parts of Australia, New Zealand and other overseas countries.

We regularily avail ourselves of local walks in Kiama, notably Dunmore-Kiama and Gerringong -Kiama. We have explored other walks in the area, notably Saddleback, Drawing Room Rocks, Barren Grounds, Bombaderry Creek etc etc..

I am interested in the above committee position, but would only apply if the above rough CV was of interest to you. I don't ride a bike (but do have a kayak).

Please advise,

Best regards,

Barry Mann
4 Elouera Place, KIAMA NSW 2533
02 42322561

Dear Councillors

My name is Rachel Jackson, I am a resident of Gerringong and President of newly formed nonprofit organisation "Gerringong Live Incorporated". I write this letter with great disappointment after the recent council decision to refuse any funding for our upcoming event at the Town Hall on 20 September.

My personal motivation behind Gerringong Live Inc. came after moving to Gerringong where I noticed how social cliques can be magnified in a small community. Sporting groups, family groups and long time school friends are very obvious in a town with approx 4500 people. If you are not involved in a sporting group and you don't arrive with small children to connect you to the community then Gerringong can be a tough crowd to break into.

Our organisation is about reaching the community through live music. Bringing like minded residents together to enjoy good food, live artists, and an the opportunity to dine on communal style tables which allows guests the opportunity to connect. For our first event the catering is by Duck Duck Goose from Berry and local artists Penny Hartgerink Trio are performing.

Gerringong Live Incorporated is made up of 5 passionate local women, and one easy going husband, who wish to bring a little culture to a well know sporting community and develop relationships between the long standing families of Gerringong and the new residents of this town. And already they are talking. I have received such positive feedback from businesses and residents alike I feel this event is nurturing our village life.

Those who have shown interest are not the young venturing onto the social scene but older residents who no longer have sporting connections. They are parents who are looking for a night out locally and older residents who are not interested in travelling on the roads late at night. They are locals who love our community and want something other than a meat raffle, pokies or bistro dinner.

We originally planned our event for the 27th of September however, being the same weekend as the Folk by the Sea Festival, it was mentioned that although they had not scheduled any live music for the Gerringong community, they would prefer we hold our event on another night. Thoughtfully we changed our dates. I believe this festival *is* being supported by Kiama Council.

Our organisation was formed with the Gerringong residents in mind. We have gained support from local businesses e.g. local florist is supplying flowers for the tables, the local printer has offered to print posters and a local stylist is helping with the theming to create a stylish event. And we too are giving back to the community by way of making donations to the Children's Medical Research Institute for crockery, cutlery and wait staff hire. And to all the new residents we are saying welcome to this great community you are now apart of.

Being our first event we are relying on donations to get up and running. Our aim is to ensure we cover our expenses and to ensure we provide a safe, local event for the residents of Gerringong. Should there be any profits we hope to continue our events yearly and where possibly twice a year to bring this community together.

If our formula of quality catering, stylish theming and folk, blues and roots style music fail to thrive we would gladly donate any funds raised to the local Children's Medical Research Institute.

We would like you to reconsider your decision to support our event, and should you require any further details I would be more than happy to provide the information to you.

Kind regards

Rachel Jackson
President
Gerringong Live Inc.

Present: Clr M Way (MW), Clr M Honey (MH), J Walker (JW), H Irving (HI), D Brady (DB), C Poole (CP), F Wilmot (FW), A Pomering (AP),), S Scobie (SS)

Apologies: L Hazell (LH)

1 Minutes of Previous Meeting

The minutes of the previous meeting held on 12 February 2014 were received.

FW advised of a typographic error in item 1.

Minutes adopted. Moved MW, MH seconded.

2 Business Arising from Minutes

2.1 Swamp Road to Jamberoo Shared Pathway

DB advised that the shared pathway construction is progressing well after being delayed ~1 month due to flooding in March. Due to better than expected ground conditions it appears that more of the pathway will be constructed with the funds available than originally planned. Some boundary fencing adjustments have had to me made along with a small land acquisition near a bend that MH has kindly donated for no cost. As per the funding agreement, all works must be completed before June 30.

As requested at the previous meeting, DB has investigated the cost of provided barrier fencing along the route between the shared path and the road. For the total shared path length of 2.3km, standard guardrail = $471,500 while pedestrian fencing = $1,679,000. DB advised that these options are not considered feasible when assessing the risk of a car on Swamp Road colliding with a pathway user given the existing and predicted very low traffic volumes both on Swamp Road and the future shared pathway, the 2-2.5m separation of the path from the road pavement, the good sight distances and relatively straight sections of road, lead to a very low probability of resultant risk.

2.2 Billabong Shared Pathway Circuit

As requested from the previous meeting, DB tabled a plan showing the Crown Land and other ownership around the Billabong area. Discussion was held regarding the possibility of creating a shared pathway circuit around the Billabong area utilising the existing Crown Land. DB advised that there are some constraints in terms of riparian vegetation and access to the land that may entail a bridge to be constructed across the waterway. Liaison with NSW Crown Lands would also be required.

Action: That Council investigate the feasibility of providing a shared pathway circuit around the Billabong area.

2.3 Tourism Grant Funding

AP requested this matter be carried over to the next meeting.

Action: That AP make enquiries into previous funding expenditure and the new Federal Government's policies.

2.4 Tourist Sign Board

SS advised that the Minnamurra Railway station sign has had a "You are here" added to the sign. JW raised concerns that there is inadequate signage for cyclists when exiting Kiama to the north. MH raised similar concerns regarding the Minnamurra area. SS advised that the RDA Illawarra are facilitating a shared pathway mapping project with the three Councils. DB advised that this is similar to what the RMS were doing over 12 months ago. JW queried the status of the information previously supplied by the Committee on using symbols in lieu of words to identify the shared path routes. DB advised that this had been forwarded to RMS and Wollongong Council but there doesn't seem to be any progress on an overall map. DB advised that Wollongong Council has recently published a new large scale cycleway map based on the UBD and using colour codes instead.

Action: 1) SS to advise RDA Illawarra on work previously commenced by RMS on a coastal cycleway map; and

2) DB to query with RMS on the status of the progress of the combined cycleway map project.

2.5 Bombo Quarry Coastal Walk

DB advised that the guide posts are installed and signage will be installed shortly.

2.6 Drinking Water Stations

From the last meeting, the Committee were requested to consider location for water refill stations within the Municipality for future budget consideration. DB advised that submissions had been received nominating 3 locations as South Bombo beach, Loves Bay and Kiama Visitors Centre. CP further nominated the dog off-leash area at South Headland Gerringong. After consideration the Committee prioritised the list to:

1. Loves Bay
2. Blowhole Point (location TBC)
3. South Bombo beach
4. South Headland Gerringong

MW advised that there may be scope to incorporate a water station into other projects proposed for these areas ie Loves Bay amenities / carpark, new toilet facility at Kiama harbour etc that may change the list.

Action: That Council investigate the costs options of each for consideration in its future budget.

2.7 Illawarra Cycling

AP advised that the UOW study is currently collecting data and undertaking surveys to look at how cycling is used for active transport in the region (if any) as opposed to leisure cycling.

2.8 New Committee Member

DB advised that following the advertised expression of interest for a new committee member to replace the resignation of John Tomlinson, 3 submissions were received. A vote took place in which Mr Barry Booth was selected.

Motion: 1) The Committee recommends that Mr Barry Booth be appointed as the new member to fill the vacancy created by the resignation of Mr John Tomlinson.
2) That letters be sent to the other unsuccessful candidates thanking them for the interest in the position.

2.9 Sale of Land Lot 11 DP1039505 - No. 37 Newing Circuit Kiama Downs

DB advised that he had discussed the early acquisition of an easement across the above property with Council's Property Manager who advised there would be no advantage to Council to try and secure this easement at this time.

2.10 Saddleback Walking Track

DB tabled a plan of the area between Saddleback Mtn to Barren Grounds for discussion on re-establishing a walking trails in this area between Hoddles Track to Barren Ground. It was agreed that a walking track between Mt Noorinan and Saddleback Trig Station should be investigated by Council.

Action: Council investigate the establishment of a walking track between Mt Noorinan and Saddleback Trig Station at Barren Grounds.

2.11 Surf Beach Shared Pathway

DB advised that the sand had been cleared from the pathway and that Council's maintenance section already undertake regular clearing on a 2-3 month basis.

2.12 Rocklow Creek Shared Pathway

DB advised that Council's maintenance section were aware of this asphalt issue and have programmed a concrete pathway replacement in future years. They were also awaiting the trees to reach full maturity before commencing. In relation to the slip issue reported, this will be cleaned in the near future while investigation of possible bridge deck replacement continues.

3 New Business Arising

3.1 Princes Highway Bombo Fencing

The RMS has advised that it will soon be installing pedestrian fencing on the eastern side of the Princes Highway south of Bombo Railway Station to the Hutchinson St ramp. It is noted that the Committee made similar requests for this safety matter to be addressed 3+ years ago.

3.2 Future Meeting Date Change

Due to a number of members being absent, the remaining 2014 Committee meetings have been postponed by 1-2 weeks to the following:

- Wednesday 27 August 2014
- Wednesday 19 November 2014

There being no further business, the meeting closed at 6.05pm.

The next meeting will be held on Wednesday 27 August 2014 commencing at 4.30pm.

KIAMA LIQUOR ACCORD
Report of meeting held at Kiama Golf Club
Wednesday, 13th May 2014

Attendance: Mark Gilmore (The Grand Hotel), John Bambury (Kiama Leagues Club)David Rootham (Kiama Golf Club - Minutes), Erica Warren (Jamberoo Pub), Carmel Goldsmith (IGA), Nick Guggisberg (Kiama Council), Rebecca Sinclair (OLGR), Angela Anastassirdis (OLGR), Leanne Silveri (OLGR), Mark Schmidt (Police), Gary Keevers (Police), Gillian Smith (ISLHD Drug and Alcohol)

1. Apologies – Peter Head (Gerringong Bowling Club), Ben Cuthbert (Kiama Bowling Club), Janelle Burns (Kiama Council)

2. Report of the 19th February 2014 meeting: Tabled. Moved EW, seconded MG that the minutes be accepted as a true record of the meeting.

3. Matters Arising:
Correction to minutes under 7.1. Should read *….to 10pm….*

JB updates the accord on negotiations to reinstate funding for the 'night bus' which have been successful in that RMS has agreed to fund the bus for $12,000 annually.

4. Correspondence: NIL

5.Treasurers Report: Tabled and spoken to by JB, Membership renewals are about to go out in line with the new membership year. New terms will be a great way to help boost membership.

6. OLGR Report: Angela, Rebecca and Leanne speak on how the 'terms' came about how it is working to promote accords and to minimise alcohol related incidents. There is discussion on the template document and how the included points may be tailored to the Kiama LGA. Discussion works through many real life scenarios in order to determine best course of action.

In principle the accord agrees with the idea behind the terms and would like to pursue this initiative. Steps forward will be

1. OLGR will work up a draft document specific to our accord.
2. This will be sent to our steering committee made up of JB, DR, EW (possibly also CG, GK and another representative from the Kiama Inn).
3. The document will be circulated to the members in preparation for a vote.
4. The accord members sign off on the document
5. The completed document is sent back to OLGR for 'registration'
6. OLGR send to Illawarra LAC.
7. Accord members work their magic.

Tabled as part of this discussion are several documents including example terms from other accords, resources from OLGR including example patron policy, standard barring policy and crime scene perseveration guidelines. DR will endeavour to circulate copies of these to accord members in good time.

7. Police Report: Delivered as part of previous discussion. Notification of a DA which is before council for tattoo shop located near the Grand Hotel. Also discussion on Armed hold up response

after robbery at Kiama Bowling Club. Police remind all accord members to be compliant and cooperative to minimise the risk to staff and patrons

8. General Business: NIL

9. Meeting Closed: at 3.30pm**.** John Bambury, on behalf of the meeting thanked the staff and management of Kiama Golf Club for hosting the meeting and providing an excellent afternoon tea. Next meeting is called for Wednesday the 20th of August 2014 at 10.30pm venue TBC.

CLEARY BROS

PO Box 210
PORT KEMBLA
New South Wales 2505
Australia

Telephone (02) 4275 1000
Facsimile (02) 4276 1168

Our Ref: GEN1405-13

27 May 2014

Gerroa CCC Member
Kiama Council
PO Box 75
Kiama NSW 2533

Attention: Councillor Andrew Sloan

Dear Sir,

Gerroa Sand Resource Quarry
Copy of CCC minutes held on 13 May 2014

Please find **attached** a copy of the minutes from the Gerroa Sand Resource Community Consultative Committee meeting held on 13 May 2014.

Yours faithfully
Cleary Bros (Bombo) Pty Ltd

Helen Nicolaidis
Environmental Officer

1

PURPOSE OF MEETING: Gerroa Sand Resource – Community Consultative Committee Meeting	**MEETING NUMBER:** GER-CCC-11 **MEETING DATE:** 13 May 2014 **VENUE:** Gerroa Neighbourhood Centre
ATTENDEES: Brian Weir (BW), Helen Nicolaidis (HN), Arthur Webster (AW), James Doak (JD), Glendon Lee (GL), Andrew Sloan (AS) **APOLOGIES** Steve Crandell, Terry Barratt	**DISTRIBUTION:** All attendees & apologies Director-General, Department of Planning

Items are given the meeting number first and then an item number, then each item will have an individual number to be carried forward with it if raised again at future meetings.

ITEM	DATE RAISED	DESCRIPTION	STATUS COMPLETE/IN PROGRESS	ACTION BY WHOM	ACTION BY WHEN
Meeting commenced at 9:12 am					
		BW welcomed all to the meeting. BW acknowledged the traditional owners of the land and paid his respects to Elders past and present.			
1		**Review of previous meeting minutes** The previous minutes from 10 December 2013 were accepted by all as being accurate			
2		**Update on Gerroa Sand Resource Production** HN advised the following production report as prepared by Steve Crandell. <u>Production</u> Approximately 60,000 tonnes year to date production to the end of April 2014 and 6,400 tonnes in April 2014. With no external sales, Cleary Bros Concrete Division is the only Sand Resource customer. Production is forecast is to hold steady as Cleary Bros concrete work load is high at the moment and the Division's forecast is that it will stay at this level until at least the end of the current financial year and into the next.			

CB 4.16 F2 Rev C

ITEM	DATE RAISED	DESCRIPTION	STATUS COMPLETE/IN PROGRESS	ACTION BY WHOM	ACTION BY WHEN
2 cont		Conservation works New plantings on the site will be complete within a fortnight in Zone 2D. This is a great milestone for the Sand Resource. Ongoing maintenance of the conservation areas and the new plantings will then be the priority. Material Testing No change to the end products. The grading, organic impurities, clay / silt content have all been within specification. Other News Nothing to report. Current production tonnes, man hours, truck movements and general operations are not expected to change from what has been achieved in the last quarter.			
3		**Review of environmental results** HN provided the following summary: The groundwater testing was continuing on a quarterly basis. In general, the analytes are stable and in line with historic results, and no detrimental effects on the surrounding ecosystem. The dust levels continue to be low at all 3 locations and below the objective limits. The pH and sulphur readings of the stockpile are below the objective limits. The ecologist and Jerringa Council continue to inspect the trees for koalas and the topsoil prior to stripping and no issues have been raised. Note that there is one remaining 20m section to be cleared in the East West Link. Work will then move into the grassed areas and the earth bund will progress along Zone 3 to act as a visual bund. No complaints were received since the July CCC meeting.			

ITEM	DATE RAISED	DESCRIPTION	STATUS COMPLETE/IN PROGRESS	ACTION BY WHOM	ACTION BY WHEN
3 cont		The Independent Environmental Audit was carried out in November 2013. It is pleasing to note that there were no major non compliances. A copy of this audit was sent to all CCC members and was posted on CB website. Questions JD asked if there had been any incidents at the Sand Mine during the heavy rain events in early April? HN advised that there were no incidents at the Sand mine, however there was an inspection of the site following the event. AW advised that representatives from the EPA, Kiama Council and the Office of Environment and Heritage inspected the Sand mine and CB Farm on 9 April 2014. The inspection followed a complaint about "black" water runoff from Blue Angle Creek into the Crooked River. AW advised that at the site inspection, it was agreed that no runoff had discharged from the CB Sand mine. AW advised that during the inspection of the low lying area of the CB Farm, the EPA took basic water quality readings for pH and dissolved oxygen at various locations. The samples were within accepted guidelines. It was concluded that the "black" runoff was due to the large amount of organic water being washed into the creek. A letter from the EPA (dated 10 April 2014) regarding the site inspection was tabled. There were no further questions on this matter.			
4		**Questions / General Discussions** No questions or other business raised.			
Meeting closed at 9:25am					

CB 4.16 F2 Rev C

Minutes of the Kiama Youth Advisory Committee meeting held on Wednesday 4 June 2014 at Kiama High School at 10.40am.

Present: Clr. Neil Reilly (Kiama Municipal Council), Andrew Chatfield (Kiama Municipal Council, Chair), Jess Kearns (Kiama Municipal Council, Minutes), Bonnie Hittman (Kiama Youth Belonging), Michael Dalitz (Kiama Library), Sharnie Heffernan, Grace Allen, Imogen Bakewell, Dylan McGilivray, Keelan Robinson, Jessica Davis, Benjamin McAlister, Michael Swain, Luke Munro, Lily Gore, Erin Chard, Laura Burling, Andy Wedd and Toby Allen (Kiama High School Representative Council).

1. **Apologies:**

2. Minutes of previous meeting:

Read by Bonnie Hittman, seconded by Michael Dalitz.

3. Business arising from previous meeting:

Nil.

4. Reports / General Business

4.1 Youth Belonging Project

Youth Belonging Project Officer Bonnie Hittman gave the committee a quick overview of the project.

The program had been advertised mainstream, through the Council website, articles and on the news. It had also been advertised via Ms. Power who approached students she thought might be interested in the project.

The school based project operates during sport time, Wednesday in L8 and currently looking at organising a Youth Forum early next term.

The SRC raised that a Mental Health Youth Forum would be a good idea to educate everyone on what to do and how to get help for yourself or a friend.

4.2 Youth Centre renovations

Andrew Chatfield reported on the current renovations and planning for the SENTRAL model of service. A commercial kitchen which would operate as a cafe on weekends and provide hospitality and barista training for young people.

Andrew will let the committee know how these plans are going and how to get involved with other renovation decisions.

4.3 Kiama High School Projects

Andrew Chatfield reported on current partnership projects between the Youth Centre and Kiama High School during Term 2. These projects include:

- Kiama Youth Belonging
- Youth Worker mentoring program
- Youth Advisory Committee meetings
- Kiama High Volunteer program
- Young Men's program
- Confirmation of the Youth Engagement meeting scheduled for August 5th.
- Kiama Council Work Experience Program

4.4 Event Management Committee

Andrew Chatfield reported on the Event Management Committee which meets every Thursday at the Kiama Youth Centre.

The committee organises events in the Kiama LGA, and is currently working on "Epic Kid Day".

4.5 Kiama Library youth events update

Kiama Library Officer Michael Dalitz reported on a HSC Tutoring Day being held at Kiama Library which would look at other subjects other than English. It is open to year 11 students as well.

5. General Business

5.1 Chairs in Hindmarsh Park

SRC students explained that the green picnic tables and chairs in Hindmarsh Park aren't overly practical, with it being difficult to sit at them.

5.2 Youth Gym Membership

The SRC raised the idea of a gym membership for 16 to 19 year olds.

5.3 Better Promotion Needed for Kiama Events

The SRC raised the issue that the recent movie night in Kiama wasn't advertised very well, and a lot of non-locals not being aware of what was going on.

The movie night held in Gerringong received a positive response.

5.4 Better Transport in Kiama

The SRC commented current transport issues including a bus after school that could drop students at the library or Terralong Street would benefit a lot of students.

The bus that ran from Jamberoo to Kiama wasn't well advertised as not many people knew about it until it was cancelled.

5.5 Student Car Park

The SRC raised that a better parking area for students who drive to school was needed.

The surrounding streets near the High School cannot be used to park anymore. Parking is available below the preschool, however the students felt it wasn't ideal as there are small children and parents coming and going at the same time students were arriving and leaving the school. Students are currently parking on a large, grassed area.

Action: Clr. Neil Reilly to provide a report back from the Traffic Committee to present to students at the next meeting.

6. Next Meeting

The next meeting of the Kiama Youth Advisory Committee will be held on July 2 at 10.50am at Kiama High School.

There being no further business the meeting closed at 11.40am.

Set out below are the definitions for the issues categories:

1. INDUSTRIAL RELATIONS & EMPLOYMENT

Industrial relations and employment related legislation; industrial awards and rates of pay; WHS and worker compensation compliance; human resources policy, practice and benchmarking; workforce planning and development; staff and councillor training and development; skills shortages; staff attraction, retention and productivity; employment security; workplace change; Code of Conduct; leadership and management capacity; capability framework; council governance.

2. ECONOMIC

Own source revenue (e.g. rates, fees, charges etc.); intergovernmental fiscal relations (e.g. grants, cost shifting etc.); financial management and governance including long term financial planning and asset management; financial sustainability; economic policy affecting Local Government; local and regional economic development (including tourism); transport (e.g. roads, bridges, airports, pedestrian and cycle facilities, rail); Local Water Utilities; stormwater and floodplain infrastructure; other infrastructure and disaster management and recovery.

3. ENVIRONMENTAL

Land use planning (including environmental, heritage conservation and development planning); ecologically sustainable development; waste management in accordance with the waste hierarchy and extended producer responsibility; natural resource management; protection of local, regional and state natural environments including air quality, rivers and waterways and biodiversity, biosecurity and weeds management; pollution prevention including energy consumption and soil contamination; environmental risk management through reduction of hazards and pollutants and remediation/rehabilitation of degraded environments; climate change mitigation and adaptation; and responsible resource consumption and conservation.

4. GOVERNANCE/CIVIC LEADERSHIP

Local Government legislative and regulatory settings (e.g. Australian and/or NSW Constitutional recognition; Local Government Act review); corporate governance (e.g. role differentiation for Mayors, Councillors, General Managers and senior staff; Codes of Conduct; Political donations); structural reform (e.g. amalgamations and/or boundary changes; shared resources and services); Local Government elections (e.g. financial impact of electoral reforms on councils; impact of electoral reforms); participation (e.g. women's participation rates as councillors; cultural diversity in leadership; other opportunities for citizens to genuinely participate in council processes); and policies and programs of other spheres of government that impact on Local Government governance or citizen involvement in local democracy.

5. SOCIAL POLICY

Social planning, social impact assessment, access, equity and social justice; community development and community cultural development; community halls and neighbourhood centres, ageing and disability services, women's services, youth services and children's care and education services); issues of concern and interest to NSW Aboriginal and Torres Strait Islander Peoples; cultural services (performing and visual arts, art galleries, performing arts centres, museums, public art, community arts, festivals, celebrations, heritage, new media and digital arts); Libraries; Health services (regulatory activities reducing public health risks; promoting healthy lifestyles; immunisation, early childhood health centres or rural medical services); Recreation facilities and services; and crime prevention planning.

Local Government NSW Annual Conference 2014

DRAFT PROGRAM 19 - 21 October, 2014 (as of 29 May 2014)
Main conference venue is C.ex Coffs, 1 Vernon Street, Coffs Harbour

Sunday 19 October

3.00pm – 7.00pm	*Registration opens, Upstairs Auditorium Lobby, off Blue Room*
5.00pm – 7.00pm	President's Welcome Reception at C.ex Coffs Welcome To Country (Performance) Welcome from **Cr Denise Knight, Mayor of Coffs Harbour City Council** Welcome from **Cr Keith Rhoades AFSM, President, LGNSW**

Monday 20 October
Business Session Day 1 - chaired by Cr Keith Rhoades AFSM, C.ex Coffs

8.00am – 5.00pm	*Registration opens in Trade Expo. Distribution of voting materials and electronic handsets.*
9.00am – 11.00am	Opening of the Business session, Adoption of Standing Orders and Consideration of Motions chaired by the President
11.00am – 11.30am	*Morning tea in Trade Exhibition*
11.30am – 11.35am	Message from Local Government Super
11.35am – 1.00pm	Consideration of Conference business continued chaired by the President
1.00pm – 1.50pm	*Lunch in Trade Exhibition sponsored by Local Government Super*
1.50pm - 2.00pm	Message from sponsor
2.00pm – 2.05pm	Short address from the Mining Related Councils (to be invited)
2.05pm - 3.00pm	Consideration of Government's response to the Local Government Review Panel's *Revitalising Local Government*
3.00pm – 4.00pm	Consideration of Conference Business continued, chaired by the President *Collection of all electronic handsets and voting cards*
4.00pm – 5.00pm	*Happy hour in Trade Exhibition*
5.00pm – 5.30pm	*Delegate transfers back to accommodation for dinner*
7.00pm – 7.30pm	*Transfers for delegates arriving at Dinner*

Conference Dinner, Bonville Golf Resort, North Bonville Road, Bonville

7.30pm	Arrival drinks and canapés Entertainment with Soulman O'Gaia
8.15pm	Delegates seated and main course served Welcome from the President Introduction of Major Sponsor Statewide Mutual Presentation of Outstanding Service Awards

8.30pm	Entertainment with Lisa Hunt
9.30pm	Dessert served
10.00pm	*First transfers offered*
11.00pm	*Function finishes, final transfer buses*

Tuesday 21 October
Business Session Day 2, C.ex Coffs

8.00am – 5.00pm	*Registration opens in Trade Expo*
8.50am – 9.00am	Introduction by Master of Ceremony, **Ellen Fanning** (invited)
9.00am – 9.10am	Annual Report and AGM from **Cr Keith Rhoades AFSM, President LGNSW**
9.10am – 9.20am	Treasurers Report
9.20am – 9.40am	Address from **The Hon Mike Baird MP, Premier of New South Wales** (invited)
9.40am – 10.00am	Address from **The Hon Paul Toole MP, Minister for Local Government** (invited)
10.00am – 10.15am	Facilitated Q and A with the **Premier of New South Wales/ Minister for Local Government**
10.15am – 10.30am	Presentation of the AR Bluett Awards
10.30am – 11.15am	**Claire Madden, Research Director, McCrindle Forecasts**, Demographic Change, Emerging Generations and the Future
11.15am – 11.35am	*Morning tea in Trade Exhibition*
11.40am – 11.45am	Message from sponsor
11.45am – 12.30pm	**Paul Clitheroe AM, Director Ipac Securities, Chairman Financial Literacy Foundation, Chairman Money Magazine** on Business Trends in Australia (invited)
12.30pm – 1.00pm	Address from **The Hon Duncan Gay MLC, Minister for Roads and Freight** (invited)
1.00pm - 2.00pm	Address from keynote speaker on planning issues (to be confirmed). Planning Panel facilitated by MC, Ellen Fanning, on 'How to make informed decisions about Planning'
2.00pm – 2.15pm	Close of Conference
2.15pm – 3.00pm	*Lunch (Conference closing).*

This program is correct at the time of printing; speakers and program details may have changed due to unforeseen circumstances.

MINUTES of the SOUTH PRECINCT Annual General Meeting held on Thursday 15 May 2014 at Gerringong RSL Rooms

Meeting Opened at 7.30 pm

Attendance : 25 present with Darrell Clingan in the Chair.
Brian Whittaker – Director, Engineering and Works in attendance.
Karen Williams, Chris Peat and David Hicks from Fulton Hogan were welcomed to the meeting.

Apologies : Stephen and Linda Brazier.

Chairman's Report. Darrell Clingan read his report – see attached

Secretary's Report. Graham Fairbairn read his report – see attached

Financial Statement Trevor Cuthbertson read the financial statement

Moved that the reports be received – Hetti Stein/ Malcolm Weir . carried

Election of Officers Darrell Clingan declared all positions vacant and handed over the chair to Chris Quigley for the election of officers

Chairperson
Darryl Clingan – nominated by Sue Wells/Bill Popple Elected unopposed
Secretary
Graham Fairbairn – nominated by Wayne Wells, Malcolm Weir. Elected unopposed
Deputy Chair and Treasurer
No nominations – position left vacant

Darrell thanked the Precinct for its confidence in the Executive and indicated his intention to step down next year.

Brian Whittaker - Reported on the Draft Budget and Operational Plan for Kiama Council. Submissions close soon – see the website.

Brian spoke about the major budget items for Capital Works funded for the Gerringong area

- Coastal walking track and parking area/toilets at the Kiama end. On 3 June there will be a public access meeting at Council to discuss the proposal
- Gerroa – pathway from Fisherman's Club to Crooked River via Burke Road
- Tennis Courst at Werri Beach - $48000
- Jerrara Dam – Council has made the decision to decommission the dam. Water level will be lowered, Reserve will be maintained
- Werri Beach - Outdoor fitness equipment – $70,000 allocated
- Gerringong Men's Shed – Proposal by Lions Club to renovate Netball shed with agreement of Netball Club – Asbestos roof to be removed and sewer connected.
- Town Hall Audio visual equipment to be funded from current year's budget with contribution from Pics and Flicks.
- Pathway connecting Elambra Estate to Gerroa Rd cycleway
- Town Hall roof – good progress-
- Werri Beach pool out of action because valve needs replacement – to be done when tides make it possible.

Questions to Brian.

Gerroa Rd pathway- suggestion that safety barrier to protect houses in Nile Place from traffic be considered

Exotic weeds – Parramatta grass, spiny burr grass. Programme funded by Federal Govt.

Council Land in Gerringong under consideration for possible sale – Cnr. Willawa Ave and Fern St – zoned as residential land but still community use. Land in Blackwood St behind RFS station.

Highway Upgrade Report on progress from Fulton Hogan –

David Hicks – Bridge Project Manager – spoke about the construction of the Fern St Bridge - each section is formed at southern end casting bed and launched into position. 400 tonnes per segment.

Karen Williams - Traffic changes

- Belinda St, intersection now moved to Willowvale Rd. junction.
- Belinda St to be closed at nights for four days in early June to allow drainage work under Belinda St. Detours via Rose Valley Rd and back down into Fern St, Notifications to be delivered to every home in Gerringong.

Questions re Holiday traffic. – Traffic Committee has made some suggestions to RMS to improve flow and reduce congestion.

May General Meeting

Minutes of meeting of 17 April were taken as read and confirmed.
Moved Malcolm Weir/James Doak Carried

Business Arising:

Meeting with Mayor and General Manager took place on 9 May – very positive

- Brian Petschler to come to our June meeting

There was some discussion about the review of the Operational Guidelines.

- **Issues raised with Council.**

Spillage of fuel at Caltex SS – referred to environmental officers for investigation

Lighting in Blackwood St carpark – long term plans for School of Arts and area To be further addressed because staff from IGA and bottle shop need to access parking area late at night. Question as to why parking under building is not being used.

Fires on Gerroa Beach – an illegal activity occurring on all beaches from time to time. Signage would be expensive and of limited effectiveness. Problem is that fires are usually at night when Rangers are unavailable.

Town Hall – projection screen – funds in present budget. Small
Roof includes sarking and insulation of ceiling

Clearing of Trees on Gerroa Rd – Statistics from Kiama LGA indicates no issues and so further clearing of trees is not necessary

Correspondence: Letter from Illawarra District Noxious Weed Authority – Bitou Bush – spraying to be done in mid to late May along cliff top near Walker's Beach

Cleary Bros Trucks on Gerroa Rd – 20cents per tonne payable to Council

Council Papers : Meeting to be held next Tuesday 20 May

- papers not yet received

Development Applications

- **nil**

Traffic Report: Nil

Neighbourhood Watch Bill Popple reported on a small amount of crime during school holidays Neighbourhood Watch meets 2nd Monday at 2.30pm at RSL Hall.

General Business

- Lighting at Mick Cronin oval – need to be fixed – question as to who is responsible
- Operational Guidelines – to be looked at next meeting. Copy to be sent out with the minutes

Next Meeting : Thursday 19 June at 7.30 pm at the Gerringong RSL Hall.
The Mayor will be in attendance.

The meeting closed at 8.55 pm

Darrell Clingan Chairperson .....

Graham Fairbairn Secretary .....

SOUTH PRECINCT Chairperson Report 2013-2014

South Precinct continues to be a active forum in the community, in which the residents have a voice.

We continue to maintain strong relationships with, Kiama Council and Fulton Hogan the Highway upgrade sub contractors, with their representative Karen Williams attending most meetings with an update on the work being carried out.

Activities during the year included, Meet the Candidates for the seat of Gilmore, in the Federal Election 2013 where over 100 people attended, visit by our local State member Gareth Ward in Dec 2013 and the organisation of a Bizsafe forum for local business, this was presented by the Lake Illawarra Local Command of the Police Dept .

Precinct over the last 18 months has realized that to maintain its ability to remain relevant and functional in the community we must take advantage of Social media and with that in mind we have opened a Face page, with postings being updated regularly, which include our monthly meeting minutes (thanks to Wayne Wells). Wayne also writes a monthly article in the Gerringong Whispers, which I know is very popular, and is a summary of the previous month's meeting, for which we thank him. Presently we are communicating with Kiama Council to revisit and revise Precincts Operational Guidelines, which were established some 23 years ago, so that they reflect what is required now and into the future running of Precinct.

Special thanks to all members, to the executive, Graham and Trevor, and to Wayne Wells for his ongoing behind the scenes support.

Darrell Clingan **Chairperson**

Secretary's Report to AGM - Thursday 15 May 2014

The South Precinct has held 10 ordinary public meetings over the past year with an average attendance of 16 people. A special meeting held in August to hear each of the candidates standing for the Federal Electorate of Gilmore was attended by about 100 residents. Precinct provides means by which residents of Gerringong and Gerroa and surrounding rural areas can be well informed about issues affecting the community and a vehicle for expressing their concerns about these matters.

As well as the regular briefing on matters of interest before Kiama Municipal Council including Development Applications, we have also been updated by news from Neighbourhood Watch and the Traffic Committee.

A continuing major area of focus during the past year has been implementation of the Highway Upgrade by the Roads and Maritime Services and the contractors , Fulton Hogan .. We have appreciated the willingness of RMS and Fulton Hogan to dialogue on issues and the attendance of Fulton Hogan representatives at our meetings. The opportunities for community consultation have meant that particular matters of concern have been able to have been addressed in a timely and generally satisfactory manner

Other matters on our agenda have included Sand mining at Gerroa, the removal of trees at Gerroa near the Beach Rd intersection by Shoalhaven Council, the upgrade of Gerringong Town Hall currently being implemented and the proposed State Government Planning Review as well as improvements to keep our community and its environment beautiful and safe.

We value the support and encouragement we have received from the Mayor, Brian Petschler and other Councillors and from Council staff. We warmly welcome them to our meetings when they are able to attend.

The Operational Guidelines under which Precinct functions date from 1991 when the Precinct was set up by Kiama Municipal Council. Following discussion at the April meeting about the future of Precinct, a meeting was held with the Mayor and General Manager, with the Precinct Executive and several other Precinct members in attendance. The aim was to discuss ways in which Precinct can maintain its value and continue its effectiveness as a voice for the local community. A review of our Operational Guidelines and other suggestions will be pursued in the coming year.

Thanks to Wayne Wells who continues to keep the wider community informed of Precinct activities through regular articles in the Gerringong Whispers. Wayne has also been instrumental in setting up a Facebook page for Precinct with the aim of reaching a wider audience. Thanks also to all those who have contributed to our meetings and have pursued the matters of concern giving their time and effort to work for the interests of our community.

Graham Fairbairn **Secretary – South Precinct**

COMMENCING AT:	Meeting commenced at 10.30am.
PRESENT:	Councillor Dennis Seage, Darren Brady (Manager Design and Development) Janelle Burns (Road Safety Officer), Sen Constable Kevin Brown (Lake Illawarra Police), Trevor Cuthbertson (Community Representative).
APOLOGIES:	Gillian Smith (Drink Drive Prevention Coordinator) Glenda Castles (RMS Road User Safety Officer) Daniel Rowe (RMS Road User Safety Officer) Gillian Hollingsworth (Schools representative), Dennis Tracey (Senior Ranger).

1. Minutes of Previous Meeting

That the minutes from the previous meeting dated 9 April 2014:
Tabled: Accepted as a true record of the meeting.

Moved: Mr.Darren Brady, seconded: Sen Constable Kevin Brown

2. Business Arising from the minutes:

Nil

3. Road Safety Report:

3.1 Log Book RUN

Information was presented on the upcoming Log Book runs for learner drivers.

The Log Book runs provide an opportunity for learner drivers and supervisors to experience a variety of driving conditions including Police RBT, speed checks and driver reviver.

Day Time Log Book Run

Day time log book are held at 10.00am-12.30pm in Shellharbour and Kiama
Sunday 15 June 2014 is the next scheduled night time run for Kiama leaving from Lake Illawarra PCYC

Night Time- Log Book Run

Tuesday night time runs are held at 6.00pm – 8.30pm in Shellharbour and Kiama
Tuesday 15 July 2014 is the next scheduled night time log book run for Kiama, leaving from Lake Illawarra PCYC
All learner drivers must have 40 or more log book hours to take part in the log book run.

3.2. GLS WORKSHOP

The next free workshop for parents and supervisors of learner drivers to help with practical advice on teaching learners how to drive will be held at Kiama Municipal Council, Chambers on **Wednesday 20 August 2014** from 6.00pm – 8.00pm.

3.3. TRAFFIC COMMITTEE Matters

Speed counts, notifications were sent to Police in April for Fern street Gerringong

Cr Seage recommended that RMS speed display boards be used in areas of high speed locations.

Traffic Matters – Princes Highway
The issue was raised of the traffic gridlock within the Kiama township during the Easter long weekend and the upcoming October long weekend and Christmas holidays.

Discussion was held by the Committee on a resolution to this ongoing problem during holiday periods as discussed in Traffic Committee.

The RMS Regional office has been advised of the concerns of the Kiama Local Traffic Committee with regards to traffic issues experienced in the Kiama township during holiday periods and a meeting in June has been arranged to discuss options.

3.4. Safety around Schools

Reminders were sent on social media notifying drivers of the 40 km speed zone around schools.

3.5. Road Safety Campaigns

Scooter Workshops

A Scooter Workshop for law week' week was held at the Kiama Library on Thursday 8 May 2014– The workshop for seniors covered pedestrian rules, observing the law and safety of other pedestrians while operating a mobility scooter or electric wheelchair along with the use of prescription medicine and the affect on driving.

The event was well received with 20 people in attendance. An evaluation of the event was tabled.

3.6 NSW Bike Week

A funding application will be sent to Transport for NSW to hold a family fun ride and activities to be held during NSW bike week in September 2014 to encourage community cycling and provide a safe and secure environment for new and less confident cyclists to improve their cycling skills on Kiama's cycle paths. This proposed Bike Week event has the support of the Kiama BUG group.

3.7 Alternative Transport Update

KIAMA MUNICIPAL COUNCIL - APPROVED PROJECT FUNDING FOR THE 2013/14 NIGHT BUS

Funding for this project has been received.

"As part of the Local Government Road Safety Program (LGRSP), Road Safety Officers are eligible to bid for project funding each financial year. RMS would like to advise council that the following project has been approved for Kiama Municipal Council for the 2013-2014 financial year. **Kiama Night Bus Total $12,000.00 plus GST"**

Cr Seage clarified that the RMS funding is for the current financial year and that new applications will be sought for the 2014/15 financial year.

4. Rangers Report

NIL

5. Road Safety 3 year action plan update

A three year Road Safety Action Plan has been completed by Kiama Council's RSO and sent to RMS for funding approval of upcoming Road Safety Projects for the next three years targeting speed, fatigue, alcohol and driver distraction.

A regional campaign involving Motorcycle Safety will be also undertaken by Road Safety Officers in the Southern Region including Kiama.

6. General Business

Mr Darren Brady, Manager of Design and Development raised the following matters for information:

Speeding
Following reports of speeding on Federal Street in the location of Minnamurra Golf Course, Council undertook speed counts on this road and found a high incidence of vehicle speeding. A copy of the results were given to the police at the meeting.

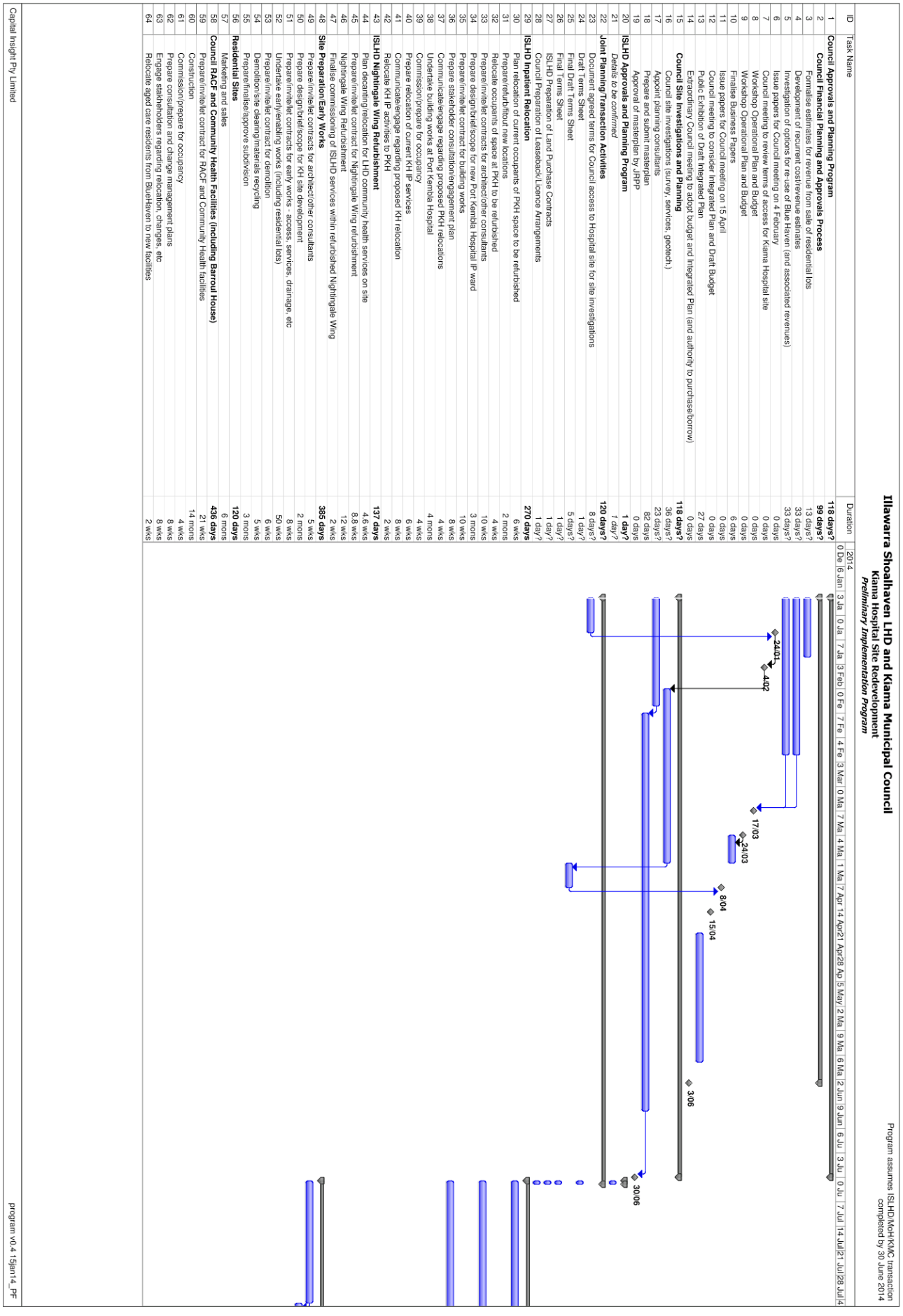
Charity Bike Ride
Reports of a charity bike ride from Thirroul to Kiama was discussed with concerns of the event taking place in relation to road safety. Further information would need to be sort from event organisers and Traffic Management Plans would be required before Council would give consent for the ride to take place on local roads due to safety concerns. Police also noted their concerns for this event to take place and request information be forwarded to them for review.

There being no further business, the meeting closed at 11.00am

The next meeting of the Committee will be held on Wednesday 13 August 2014.

RECOMMENDATION:

That Council receive the report.


Illawarra Shoalhaven LHD and Kiama Municipal Council
Kiama Hospital Site Redevelopment
Preliminary Implementation Program
Program assumes ISLHD/MoH/KMC transaction completed by 30 June 2014
ID
Task Name
Duration
2014
24/01
4/02
17/03
24/03
8/04
15/04
3/06
30/06
1 Council Approvals and Planning Program 118 days?
2 Council Financial Planning and Approvals Process 99 days?
3 Formalise estimates for revenue from sale of residential lots 13 days?
4 Development of recurrent cost/revenue estimates 33 days?
5 Investigation of options for re-use of Blue Haven (and associated revenues) 33 days?
6 Issue papers for Council meeting on 4 February 0 days
7 Council meeting to review terms of access for Kiama Hospital site 0 days
8 Workshop Operational Plan and Budget 0 days
9 Workshop Operational Plan and Budget 0 days
10 Finalise Business Papers 6 days
11 Issue papers for Council meeting on 15 April 0 days
12 Council meeting to consider Integrated Plan and Draft Budget 0 days
13 Public Exhibition of Draft Integrated Plan 27 days
14 Extraordinary Council meeting to adopt budget and Integrated Plan (and authority to purchase/borrow) 0 days
15 Council Site Investigations and Planning 118 days?
16 Council site investigations (survey, services, geotech.) 36 days?
17 Appoint planning consultants 23 days?
18 Prepare and submit masterplan 82 days
19 Approval of masterplan by JRPP 0 days
20 ISLHD Approvals and Planning Program 1 day?
21 Details to be confirmed 1 day?
22 Joint Planning/Transaction Activities 120 days?
23 Document agreed terms for Council access to Hospital site for site investigations 8 days?
24 Draft Terms Sheet 1 day?
25 Final Draft Terms Sheet 5 days?
26 Final Terms Sheet 1 day?
27 ISLHD Preparation of Leaseback/Licence Arrangements 1 day?
28 Council Preparation of Leaseback/Licence Arrangements 1 day?
29 ISLHD Inpatient Relocation 270 days
30 Plan relocation of current occupants of PKH space to be refurbished 6 wks
31 Prepare/refurb/fitout new locations 2 mons
32 Relocate occupants of space at PKH to be refurbished 4 wks
33 Prepare/invite/let contracts for architect/other consultants 10 wks
34 Prepare design brief/scope for new Port Kembla Hospital IP ward 3 mons
35 Prepare/invite/let contract for building works 10 wks
36 Prepare stakeholder consultation/engagement plan 8 wks
37 Communicate/engage regarding proposed PKH relocations 4 wks
38 Undertake building works at Port Kembla Hospital 4 mons
39 Commission/prepare for occupancy 4 wks
40 Prepare relocation of current KH IP services 6 wks
41 Communicate/engage regarding proposed KH relocation 8 wks
42 Relocate KH IP activities to PKH 2 wks
43 ISLHD Nightingale Wing Refurbishment 137 days
44 Plan decanting/relocation for LHD community health services on site 4.6 wks
45 Prepare/invite/let contract for Nightingale Wing refurbishment 8.8 wks
46 Nightingale Wing Refurbishment 12 wks
47 Finalise commissioning of ISLHD services within refurbished Nightingale Wing 2 wks
48 Site Preparation/Early Works 385 days
49 Prepare/invite/let contracts for architect/other consultants 5 wks
50 Prepare design brief/scope for KH site development 2 mons
51 Prepare/invite/let contracts for early works - access, services, drainage, etc 8 wks
52 Undertake early/enabling works (including residential lots) 50 wks
53 Prepare/invite/let contract for demolition 6 wks
54 Demolition/site clearing/materials recycling 5 wks
55 Prepare/finalise/approve subdivision 3 mons
56 Residential Sites 120 days
57 Marketing and sales 6 mons
58 Council RACF and Community Health Facilities (including Barroul House) 436 days
59 Prepare/invite/let contract for RACF and Community Health facilities 21 wks
60 Construction 14 mons
61 Commission/prepare for occupancy 4 wks
62 Prepare consultation and change management plans 8 wks
63 Engage stakeholders regarding relocation, changes, etc 8 wks
64 Relocate aged care residents from BlueHaven to new facilities 2 wks
Capital Insight Pty Limited
program v0.4 15jan14_PF

Australian Government
Department of Social Services

Mr Michael Forsyth
General Manager
The Council of the Municipality of Kiama
PO Box 75
KIAMA NSW 2533

Dear Mr Forsyth

RECONSIDERATION OF A REVIEWABLE DECISION
Section 85-5 of the *Aged Care Act 1997*

I refer to your request received on 16 December 2013 seeking reconsideration in accordance with section 85-1 Item No 8 of the *Aged Care Act 1997* (the Act), of the decision made on 2 December 2013 to extend the provisional allocation period to 12 July 2014, in respect of Blue Haven Retirement Village at Havilah Place, Kiama NSW.

As the reviewing delegate, I have considered the decision of 2 December 2013 and have decided to set aside the original decision and substitute a new decision to extend the provisional allocation period by twelve months to 21 January 2015. In making my decision, I have considered the contents of your letter of 11 December 2014 and have also taken into account the additional information provided in the Quarterly Progress Report received in February 2014:

- A joint business case has been submitted to NSW Property for approval
- A Capital Expenditure Review has been submitted to the Division of Local Government for approval
- The Funding Agreement with NSW Infrastructure is being prepared
- The sale of Kiama Hospital site is expected to be completed on 30 June 2014
- The approved provider will accelerate development consent by commencing the planning and approvals process in early 2014, prior to the transfer of the site

Decisions made under section 85-5 of the Act are able to be reviewed by the Administrative Appeal Tribunal (AAT). If you wish the AAT to review the decision made in this reconsideration you must apply to the AAT within twenty-eight days from the date you receive this letter. Further information regarding the AAT process can be obtained by phoning the AAT on 1300 366 700.

In line with the milestones and information outlined in your request, I expect the following milestones to be achieved during this extension period:

Land acquisition	July 2014
Development Application approved	August 2014
Construction Certificate approved	October 2014
Building contract signed	January 2015

NSW and ACT Office MDP 114 GPO Box 9848 Sydney NSW 2001
Telephone: (02) 9263 3555 Fax: (02) 9263 3672 ABN 36 342 015 855

If you require any further information with regard to this matter please contact Mai Vu, Departmental Officer, on (02) 9263 3732.

Yours sincerely

Roserina Murace
Director
Aged Care Branch (NSW and ACT)

14 March 2014

Draft Minutes

Of the

SOUTHERN COUNCILS GROUP

2nd Business Meeting for 2014

held

Thursday 29 May 2014

Hosted by

Bega Valley Shire Council

At Thornleigh Convention Centre

187-189 Newtown Street, Bega

Southern Councils Group

P: 02 4232 3200 F: 02 4232 3665 W: www.southerncouncils.nsw.gov.au

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INTRODUCTION

Item 1.1: Welcome, Introductions and Apologies

031: Resolved: That the Chairman invite Mayor Bill Taylor to provide a welcome to the Bega Valley Shire Council Local Government area.

032: Resolved: That the Chairman welcomes those present and notes apologies.

Attendees

Guests

Daniel Murphy	Environmental Management Officer, Bega Valley
Wayne Sartori	Group Manager, Infrastructure Waste & Water, Bega Valley
Clr Anne Mawhinney	Bega Valley Shire Council
Clr Liz Seckold	Bega Valley Shire Council

Delegates / General Managers / Staff

Bega Valley Shire Council

Clr Bill Taylor	Mayor
Leanne Barnes	General Manager

Kiama Municipal Council

Clr Brian Petschler	Mayor
Clr Neil Reilly	Deputy Mayor
Michael Forsyth	General Manager

Shellharbour City Council

Michael Willis	General Manager

Shoalhaven City Council

John Wells	Deputy Mayor (Deputy Chairman SCG)
Russ Pigg	General Manager

Wollongong City Council

Clr Gordon Bradbery	Lord Mayor
David Farmer	General Manager

SCG Staff

Lesley Scarlett	Executive Officer
Tracey Maguire	Office Manager

Apologies

Clr Juliet Arkwright	Mayor
Ann Prendergast	Acting General Manager, Wingecarribee Shire Council
Gareth Ward MP	Member for Kiama
Anna Watson MP	Member for Shellharbour
Angus Taylor MP	Member for Hume
Dr Peter Hendy MP	Member for Eden-Monaro
Lee Evans MP	Member for Heathcote
Ann Sudmalis MP	Member for Gilmore
Sharon Bird MP	Member for Cunningham
Noreen Hay MP	Member for Wollongong
Clr Marianne Saliba	Mayor, Shellharbour City Council
Clr Paul Rankin	Deputy Mayor, Shellharbour City Council
Shelley Hancock MP	Member for South Coast
Senator the Hon Concetta Fierravanti-Wells	

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Item 1.2: Confirmation of Previous Minutes
033: Resolved: That the minutes of the meeting held Friday 7 March 2013 hosted by Shellharbour City Council be endorsed.

Item 1.3: Consideration of Late Business
034: Resolved: That the following item be listed for discussion as Late Business if time allows: ▶ Review of Regional Action Plans

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STANDING ITEMS

Item 2.1: Chairman's Minute

035: Resolved: That the information be received and noted.

Item 2.2: Transport Issues

SEATS

036: Resolved: That SCG make representations to the Federal Government to express concerns about national fuel security due to the closure of the Brisbane Bulwer Island, Clyde, Kurnell and Port Stanvac refineries.

Princes Highway

037: Resolved: That SCG ask the NSW State Government what, if any, formal applications have been made by them to the Federal Government for funding for projects on the Princes Highway, for which SCG can assist build the case and advocate.

038: Resolved: That member councils forward their Princes Highway priority projects to SCG to inform the SCG Princes Highway Strategy.

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BUSINESS ARISING

Item 3.1: Waste Management and Resource Recovery

Strategic Plan Key Result Area: Efficiencies

Lead Council: SCG

039: Resolved: That the Regional Waste Avoidance and Recovery Strategy be received, and endorsed in principle.

040: Resolved: That a covering brief and a copy of the Strategy be circulated to participating councils to be considered and endorsed by their Councils (available on SCG website).

041: Resolved: That the SCG collaborate with other, similar organisations with a view to lobbying Governments to further regulate the packaging industry, producers and importers of food products to reduce the levels of unnecessary packaging, and / or develop a means whereby industry contributes to the cost of waste handling.

Item 3.2: Sea Level Rise and Coastal Hazard Management Workshop 18 July 2014

Strategic Plan Key Result Area: Efficiencies

Lead Council: SCG

042: Resolved: That the Sea Level Rise and Coastal Hazard Management Workshop tentatively scheduled for this Business Meeting be postponed until the Business Meeting to be held at Wollongong on 18 July 2014.

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Item 3.3: Formation of Joint Organisations of Councils

Strategic Plan Key Result Area: Research & Trends and Recognition & Profile

Lead Council: SCG

043: Resolved: That the information be received and noted.

044: Resolved:
That SCG request the General Managers' Committee to prepare a Future Directions Strategy, with a governance and transitions plan for Southern Councils Group that will:

- Recognise, among other drivers, the increased Bega Valley alignment with SEROC councils and the Australian Capital Territory;
- Recognise commonalities and foster collaboration across SCG and SEROC;
- Allow for management of current program and projects, and
- Build in opportunities for cross regional forums.

Item 3.4: SCG Carer Programs

Strategic Plan Key Result Area: Efficiencies

Lead Council: Kiama

045: Resolved: That the information be received and noted.

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Item 3.5: Submissions

Strategic Plan Key Result Area: Efficiencies

Lead Council:

046: Resolved: That the information be received and noted.

Item 3.6: Local Land Services (LLS) - Establishment of Community Advisory Groups

Strategic Plan Key Result Area: Recognition & Profile

Lead Council: SCG

047: Resolved: That the information be received and noted.

048: Resolved: That SCG write to LLS to express concerns regarding lack of information to local government about recent community consultations across the region on emergency response and recovery.

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NEW BUSINESS

Item 4.1: EPA Protection of the Environment Operations (Waste) Regulation 2014 Consultation

Strategic Plan Key Result Area: Structure & Capacity

Lead Council: SCG

049: Resolved: That a regional submission to the consultations on the new draft Waste Regulation be prepared by the due date of Friday 6 June 2014.

Item 4.2: Illawarra District Noxious Weeds Authority

Strategic Plan Key Result Area: Efficiencies

Lead Council: SCG

050: Resolved: That the information be received and noted.

Item 4.3: NSW Public Libraries Association Campaign for NSW Public Library Funding

Strategic Plan Key Result Area: Efficiencies

Lead Council: SCG

051: Resolved: That SCG invite a representative of the NSWPLA to address one of the next meetings.

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Item 4.4: Crown Lands Management **Strategic Plan Key Result Area: Efficiencies** **Lead Council: SCG**
052: Resolved: That member councils forward their individual responses to the "Crown Lands Legislation - White Paper" to SCG to inform a regional response. N.B. A presentation to the Board on this matter will be sought.

Item 4.5: Federal Budget **Strategic Plan Key Result Area: Efficiencies** **Lead Council: SCG**
053: Resolved: That the information be received and noted.

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Item 4.6: SCG Representations to State Government - Budget

Strategic Plan Key Result Area: Efficiencies

Lead Council: SCG

054: Resolved: That SCG prepare a report for the July Board Meeting, to present to State Ministers at the September Board Meeting at Parliament House that incorporates SCG priorities for the NSW State Elections.

Item 4.7: Draft Report on Local Government Compliance and Enforcement

Strategic Plan Key Result Area: Efficiencies

Lead Council: SCG

055: Resolved: That member councils forward comments and considerations to SCG to inform a regional submission on the Draft Report on Local Government Compliance and Enforcement for submission by the due date of 4 July.

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TREASURER'S REPORT

Item 5: Budgets for SCG's Secretariat and Programs 2014-15
056: Resolved: That the budgets for SCG's Secretariat and Programs for 2014-15 be adopted.

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LATE BUSINESS

Item 6.1: Regional Action Plans

Note:
Premier's Department has commenced a review with a desktop study of member councils Community Service Plans (CSPs) and will now to consult with member Councils one-on-one.

The focus will be on economic, community and infrastructure outcomes, with 4 to 5 strategies, per outcome, and one to two actions per strategy. A cross cluster collaborative approach will underpin the actions.

The Regional Leaders Group (RLG) will meet 3 times over the Review, and there will be three briefings of Minister Ajaka. It is also intended to set up a regional website.

057: Resolved: That the information be received and noted.

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MANAGEMENT REPORT

Item 7:

058: Resolved: That the information be received and noted.

FORUM AND PARLIAMENTARY SESSION

Item 8:

059: Resolved: That the following presentations and discussions be received at the appropriate times and thanks to the presenters made when finished.

Item 8.1: Bega Valley Shire Council Showcase:
Tathra Solar Panel Project
Daniel Murphy, Environmental Management Officer

Central Waste Facility and the NBN Infrastructure
Wayne Sartori, Group Manager Infrastructure Waste and Water, Bega Valley Shire Council

Item 8.2: SEATS Cross Border Study
Lesley Scarlett, SCG Executive Officer

Item 8.3: SCG Regional Illegal Dumping Program
Lesley Scarlett, SCG Executive Officer

There were no Parliamentary delegates in attendance at the meeting.

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NEXT MEETING

Item 9:
060: Resolved: That the next Business Meeting of SCG to be hosted by Wollongong City Council be held on Friday 18 July 2014 (details of venue and commencement time to be advised).

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Minutes of the Kiama Municipal Council Economic Development Committee meeting held on Tuesday 27 May 2014 at The Pavilion Kiama.

1 Present: Councillor Neil Reilly (Chairperson), Councillor Kathy Rice, Councillor Mark Honey, Steve Thomas, Michael Cole, Sandy Rendel, Gerry McInerney

Attending: Megan Hutchison, Russell Park

Agenda Item 1 **Apologies:** Deidre Hindmarsh, Councillor Gavin McClure, Andrew Waugh, Roy Schmidt

Agenda Item 2 Acceptance of previous minutes

The minutes of the meeting held on 29 April 2014 were accepted.

Gerry McInerney/Sandy Rendel

Agenda Item 3 – Business Arising

Jamberoo Community Website – the committee were advised that planning has commenced for the establishment of a Jamberoo community website. The committee will be updated on the progress at the next meeting.

Agenda Item 4 – Kiama Economic Development Strategy

At the May council meeting, it was agreed to place the strategy out on public exhibition for 28 days, after an executive summary was added, outlining the strategies at the front of the document. At the completion of the exhibition period, and once the document has been updated, the committee will meet to establish some timelines, and prioritise some of these strategies allocating responsibilities for each strategy, to ensure that it is achievable and measurable. Once this has been undertaken, the committee will arrange a presentation to the Councillors, General Manager and directors.

Agenda Item 5 – Service Station Proposal

The committee was given an overview of the process undertaken with regard to the possible service station site at North Bombo. The committee were advised that this was just one of the sites being considered, and other possible sites were also discussed.

Agenda Item 6 – Vacant Land Cnr Manning and Bong Bong Streets Kiama
It was agreed that this is a significant parcel of land for the Kiama LGA, and that we need to ensure that the land is used for employment generating purposes and not just for residential. It was felt that the site would be ideal for the relocation of a state government department, along with commercial and perhaps some residential. It was recommended that Gareth Ward may be able to assist us to pursue this concept. The development of this site will depend on the economics and the potential for the developer to capitalise on his return on investment. The land is zoned B2, and this allows for a variety of uses. The committee felt that council needs to be proactive and be prepared to offer some planning incentives and flexibility to achieve the outcomes desired for this important site.

Action: Megan to contact the agent to investigate the possibility of a meeting to discuss the interest in the site and the types of development that would be suitable for this site. If such a meeting was possible, others to be invited would be Kim Bray, Phil Costello, Michael Forsyth, Councillors and Gareth Ward.

Agenda Item 7 – Regional Growth Plan

NSW Planning and Environment are developing the Illawarra Growth Plan, and have been undertaking community and stakeholder consultations to develop the draft. The department are happy to meet with councillors and members of the Economic development Committee to brief them on the process and the methodology used to draft up the plan.

Action: Megan to arrange a meeting with officers from NSW Planning and Environment, Councillors and the Economic Development Committee to discuss the development of the Draft Illawarra Regional Growth Plan and the process and progress to date.

Agenda Item 8- General business and new ideas

Key Sites in the Kiama town centre – Following on from the discussion regarding the vacant land at the corner of Manning and Bong Bong Streets Kiama, the committee felt that it would be beneficial for Kiama to have a clear vision for potential development sites in key locations in the Kiama town centre. The committee were of the opinion that the Kiama Town Centre Charrette was a visionary document and that many of the projections contained within the charrette may now be allowable under the current Kiama LEP, and that perhaps we could investigate the possibility of revisiting this document to review its compatibility with current regulations. This would assist with promoting Kiama with a clear vision as to how we would like development to progress and to indicate that that Kiama is open for business.

Action: Megan to review the Kiama charrette with the planning department to investigate the key sites and their compatibility with the current LEP.

Kiama Harbour Master plan – the committee were advised that the Kiama Harbour master plan was in the process of being reviewed. The committee were keen to have an input into this process and have requested that they are consulted with regard to potential uses of this strategically important area for Kiama.

Action: Megan to request to the Director of Engineering that the Committee be included in the consultation process for the review of the Harbour Master Plan.

Meeting Closed 7.45 pm

Next meeting 5.30pm Tuesday July 1 at The Pavilion Kiama – downstairs.