



Insight for
Business & Government

Shoalhaven City Council Waste Survey 2013

Final Report

Prepared for



Prepared by
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EXECUTIVE SUMMARY

This report presents the results of the Shoalhaven City Council Waste Survey 2013. IRIS Research was commissioned by Council to conduct the fieldwork for a comprehensive telephone-based survey among the area's residents. The survey sought a range of resident attitudes and opinions about waste management in the Shoalhaven City Council area.

The survey was conducted on the IRIS Computer-Assisted Telephone Interviewing (CATI) system during 21st to 25th October 2013. A total of 511 interviews were conducted with residents from the Shoalhaven Local Government Area (LGA). To qualify for an interview, respondents had to have been a resident in the Council area with kerbside waste and recycling collection services, aged 18 or older and usually deal with the garbage or waste related issues. The survey achieved a completion rate of 61.7% which is considered a good response for a telephone survey.

The main findings of this survey are summarised under the key report headings over the next few pages.

Satisfaction with Waste Management

Shoalhaven household heads were generally satisfied with their waste management services, with 84.5% expressing satisfaction and only 4.1% expressing dissatisfaction.

Of the residents who were dissatisfied, the main sources of dissatisfaction were not having a bin for green waste (38.1%) and having a bin that is too small (28.6%).

Support for External Waste Transfer

Two in five respondents (39.5%) were unsupportive of the proposal to haul waste out of the Shoalhaven and transfer it to other areas. Just under a quarter of respondents (23.5%) supported the proposal. Additionally, 28.6% of Shoalhaven's residents expressed indifference, with a rating of 3 out of 5.

Of the residents who supported the proposal, 26.7% said the reason was that hauling the waste out of the Shoalhaven was necessary or that it has to go somewhere. A quarter of these respondents (25.8%) mentioned that there was no other option, or that there was nowhere else in the Shoalhaven for the waste.

Organic Waste Solutions

When Shoalhaven's residents were asked about various options available to recycle more organic waste, half of the household heads (49.5%) said they would prefer to have a separate third bin for their organic waste. However, of these residents, 47.4% would like it to be for their garden waste only, 32.0% would like to use it for all of their organic waste, and 20.6% would prefer to use it to dispose of their garden and food waste only.

50.5% of residents opted for a two bin system. Increasing the size of the general waste bin to take organic recycling was preferred by 27.8% and retaining the current two bin system was the preferred choice of 22.7% of survey respondents.

Two thirds of respondents (66.8%) said that they were prepared to pay \$20 or less per year to recycle more, with 33.7% saying they were prepared to pay nothing extra and 33.1% indicating they would pay an extra \$20 per year. 18.2% of household heads would pay \$50 or more per year for the new recycling system. Furthermore, 25.7% of residents who said they would prefer a separate third bin would be willing to pay \$50 or more in additional fees for this new organic waste recycling system.

Agreement with Organic Recycling Ideas

When residents were asked to rate their level of agreement with various statements about organic recycling, they most agreed that recycling organic materials extends the life of landfill (4.45 out of 5) and least agreed that they would be willing to pay more for an organic recycling service (2.99 out of 5).

83.4% of respondents agreed that recycling organic materials extends the life of landfill, while 4.3% disagreed.

Two in five respondents (39.0%) expressed disagreement towards the statement "I am willing to pay more for an organic recycling service", while 42.7% of respondents agreed.

Three out of four Shoalhaven residents (74.3%) agreed that recycling organics is a good way of providing resources for sale in the Shoalhaven area, however, 8.2% disagreed.

Support for Products of Recycled Waste

Household heads were most supportive of using products made of recycled glass, aluminium and newspaper, with 86.5% of respondents indicating support.

79.7% of respondents were supportive of using high quality compost that was produced through processing waste. However, just 22.3% of respondents were supportive of using lower quality compost.

74.9% of residents expressed support towards using electricity produced from waste.

1 INTRODUCTION

1.1 Background

This study was commissioned by Shoalhaven City Council with the intention of attaining the opinions of Shoalhaven's householders, regarding Council's waste management services.

1.2 Study Objectives

The specific objectives for the Waste Survey were to:

- Measure community support for proposed waste solutions and assess the community's preference for waste bin types;
- Uncover community attitudes towards paying for waste services;
- Canvass resident attitudes towards the environment, recycling and the importance of preserving landfill space.

1.3 Data Analysis

Analysis of the survey results was carried out by IRIS using SPSS statistical analysis software. Frequency counts, cross tabulations and charts have been used to present basic descriptive results in most sections of the report.

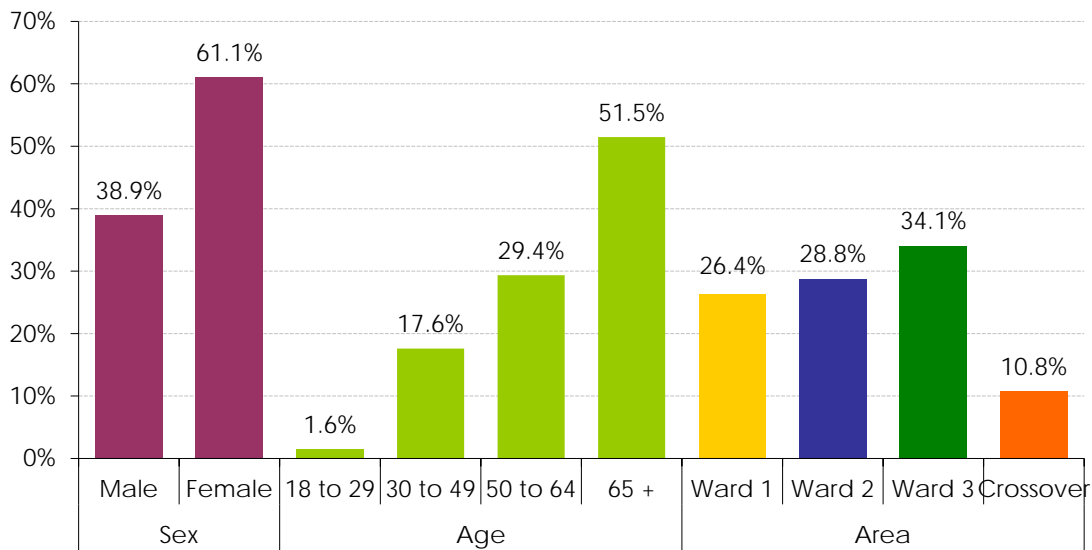
Other statistical procedures were used to conduct significance tests. Where proportions have been reported for groups of respondents (e.g. males 65% vs. females 75%) Pearson's Chi-Square was the test statistic used to determine whether group results were indeed significantly different. Z-tests were also used to compare the proportions of various demographic groups.

When comparing mean scores for interval data (e.g. 18-29 year olds = 3.40, 30-49 year olds = 3.60 & 50-64 year olds = 3.80) analysis of variance (ANOVA) was the primary statistical test used to investigate whether results were significantly different. Where more than two groups were being compared, post-hoc tests were applied: LSD (equal variance assumed). Post-hoc tests highlight exactly which groups have differing results where more than two groups are being compared.

1.4 Survey Response

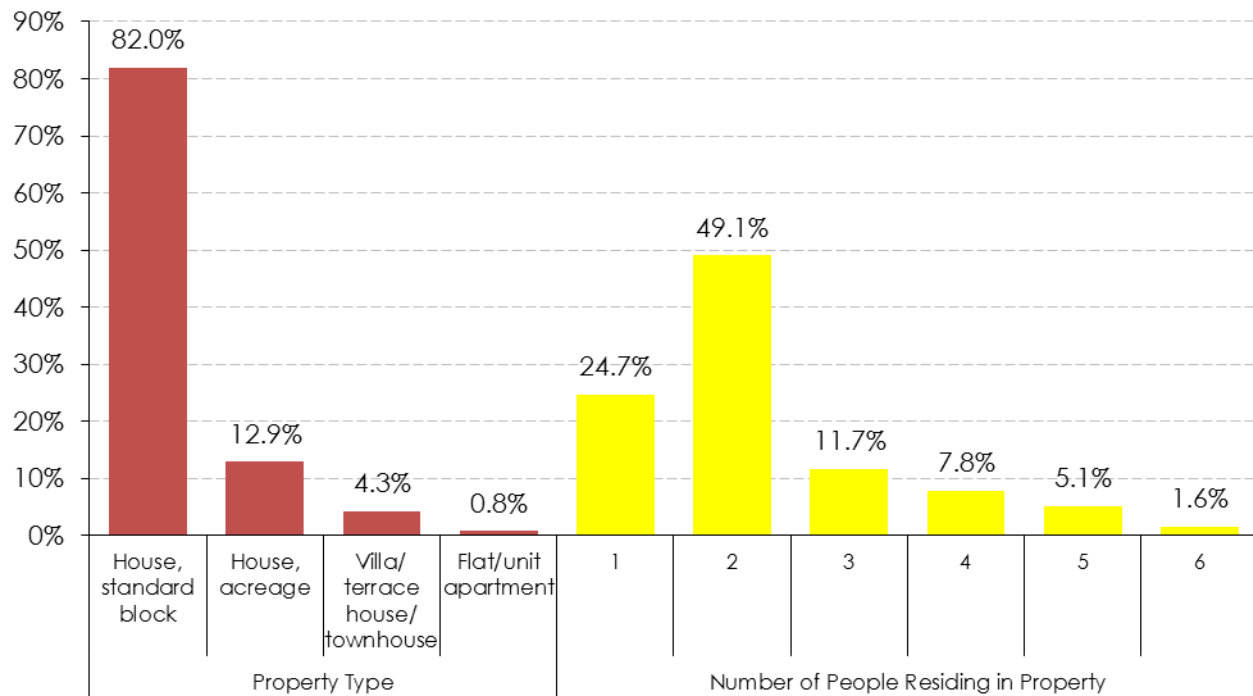
A total of 511 completed interviews were collected from a random sample of residents from throughout the Shoalhaven local government area. Figures 1-1-1 and 1-1-2 hold key information about the survey respondents.

Figure 1-1-1 Characteristics of respondents



Please note that 10.8% of respondents resided in a suburb of Shoalhaven that crossed into multiple wards, such as Nowra or Tomerong.

Figure 1-2-2 Characteristics of respondent households



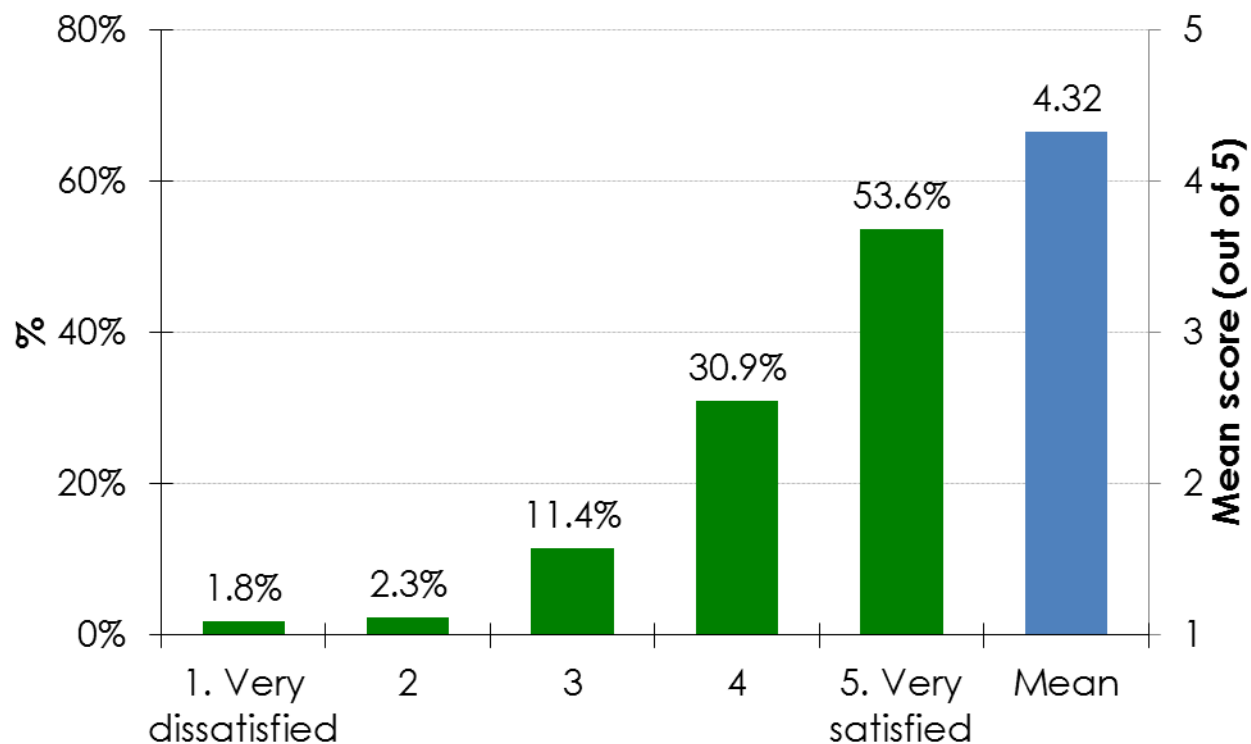
SURVEY RESULTS

2 SATISFACTION WITH WASTE MANAGEMENT

2.1 Rating satisfaction with waste management services

Residents were asked to rate their satisfaction with the waste management services that Council provides on a scale of 1 to 5, where 1 was very dissatisfied and 5 was very satisfied.

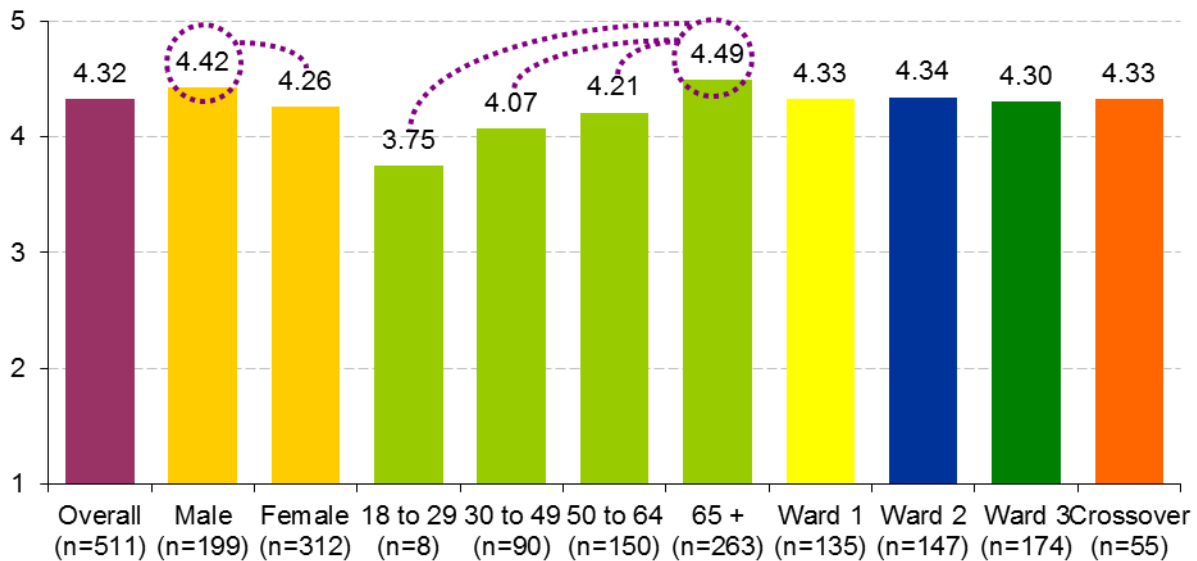
Figure 2-1-1 Satisfaction with waste management services



Key results:

- 84.5% of survey respondents expressed satisfaction with the Shoalhaven's waste management services.
- At the other end of the scale, 4.1% of respondents were dissatisfied with their waste services.
- The average satisfaction rating was 4.32 out of 5, which is a high level score.

Figure 2-2-2 Average satisfaction with waste management services



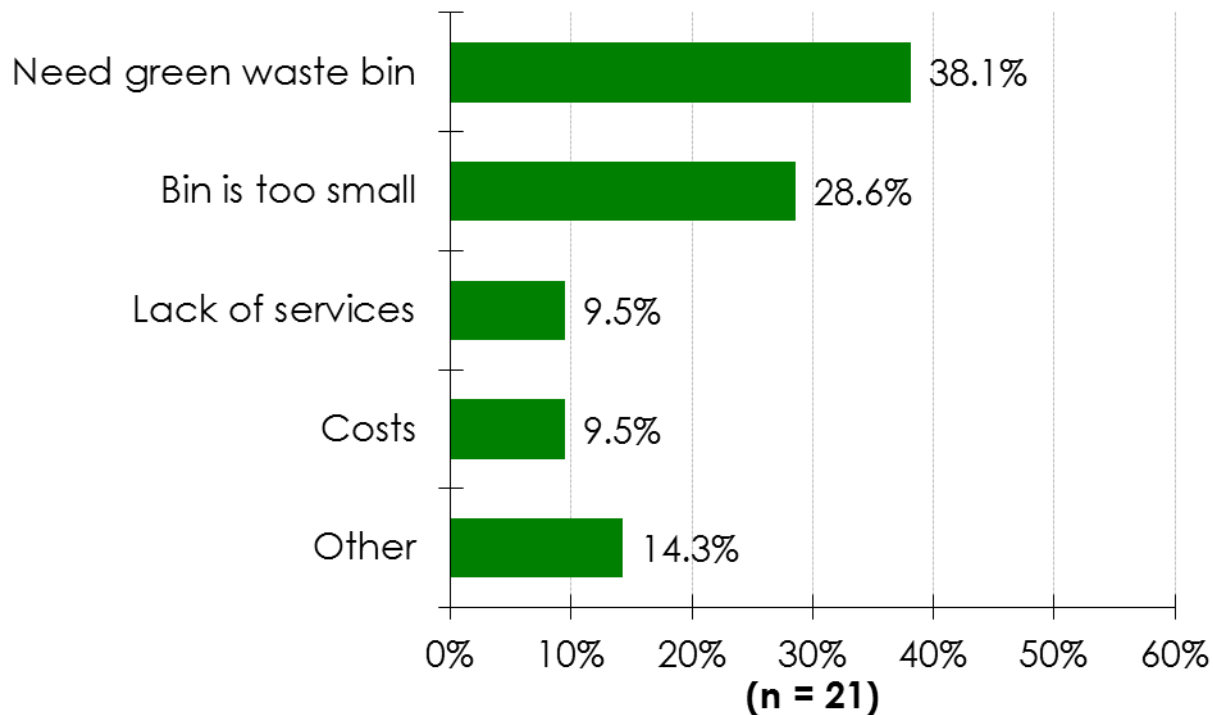
Key results:

- Further analysis found that male residents (4.42 out of 5) of the Shoalhaven region were more highly satisfied with waste management services than females (4.26).
- Head of households who were 65 years or older expressed a significantly higher average level of satisfaction with Council's waste management compared with younger residents in all other age brackets.
- There were no significant differences according to the Ward to which the residents belonged.

2.2 Reasons for dissatisfaction with waste management services

The 21 (4.1%) Shoalhaven residents, who indicated that they were dissatisfied, were asked why they were dissatisfied with the service.

Figure 2-3-1 Sources of dissatisfaction with waste management services



Key results:

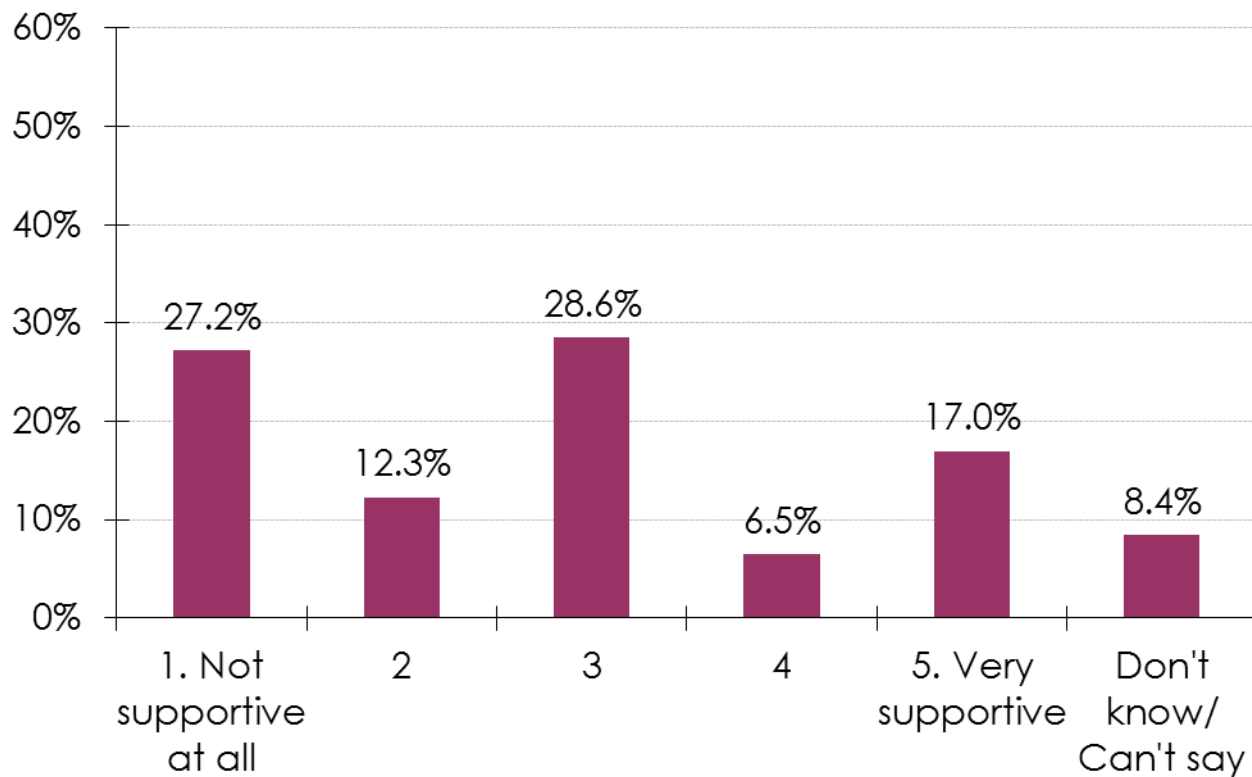
- 8 of the 21 (38.1%) dissatisfied respondents mentioned that the lack of a bin dedicated to green waste was a source of their dissatisfaction.
- A further 6 of the 21 (28.6%) dissatisfied respondents said that their bin was too small to hold their waste.
- The lack of services and the costs of the waste services were also mentioned by some respondents.
- The verbatim responses that were not categorised were:
 - Because no continuity with pick up times
 - Red top bin service, the person does not want to pick up bin and the man in the truck is rude
 - Not enough recycling, issue with the contract council driver, sita

3 SUPPORT FOR EXTERNAL WASTE TRANSFER

3.1 Support for transferring waste to other areas

The heads of the Shoalhaven households were told that Shoalhaven City Council plans to deliver cost and environmental benefits to the community by diverting waste from landfill because the West Nowra landfill facility will reach full capacity within 10 years and there is currently no alternative landfill available. They were then asked to rate how supportive they were of a proposal to haul waste out of the Shoalhaven and transfer it to other areas.

Figure 3-1-1 Support for transferring waste to other areas

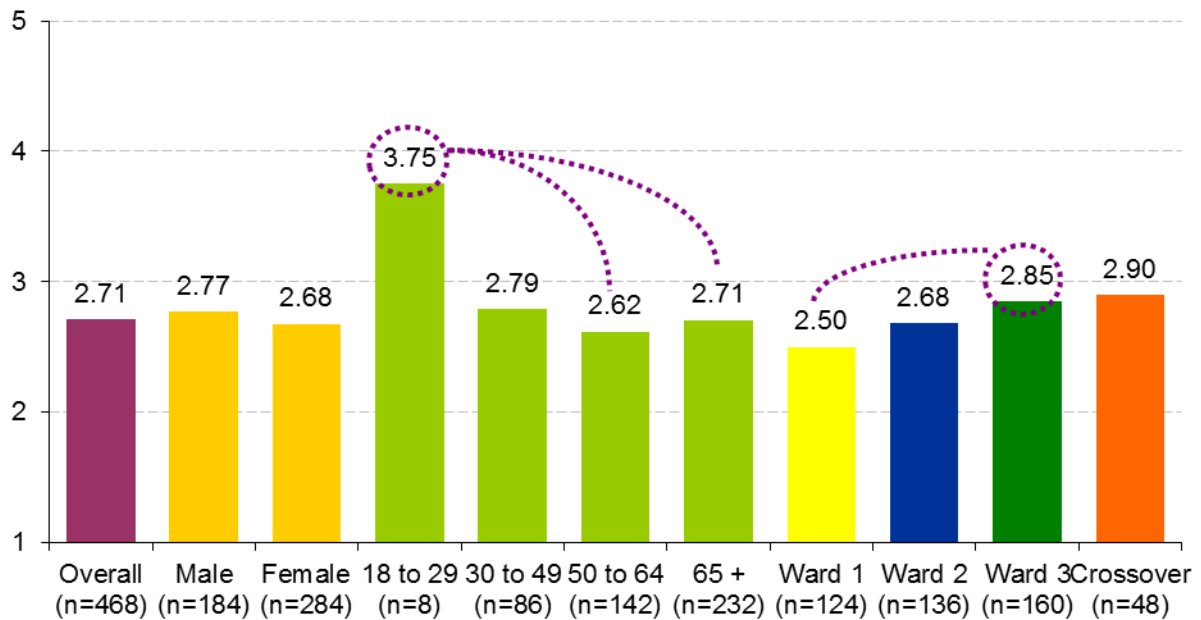


Key results:

- Two in five respondents (39.5%) do not support the proposal to take waste out of the area, with 27.2% of respondents indicating that they were not supportive at all.

- Just under a quarter of respondents (23.5%) supported the proposal, with 17.0% stating they were very supportive.
- 28.6% indicated indifference towards the idea, rating their support as 3 out of 5. While, an additional 8.4% were unable to provide a rating.

Figure 3-1-2 Average support for transferring waste to other areas



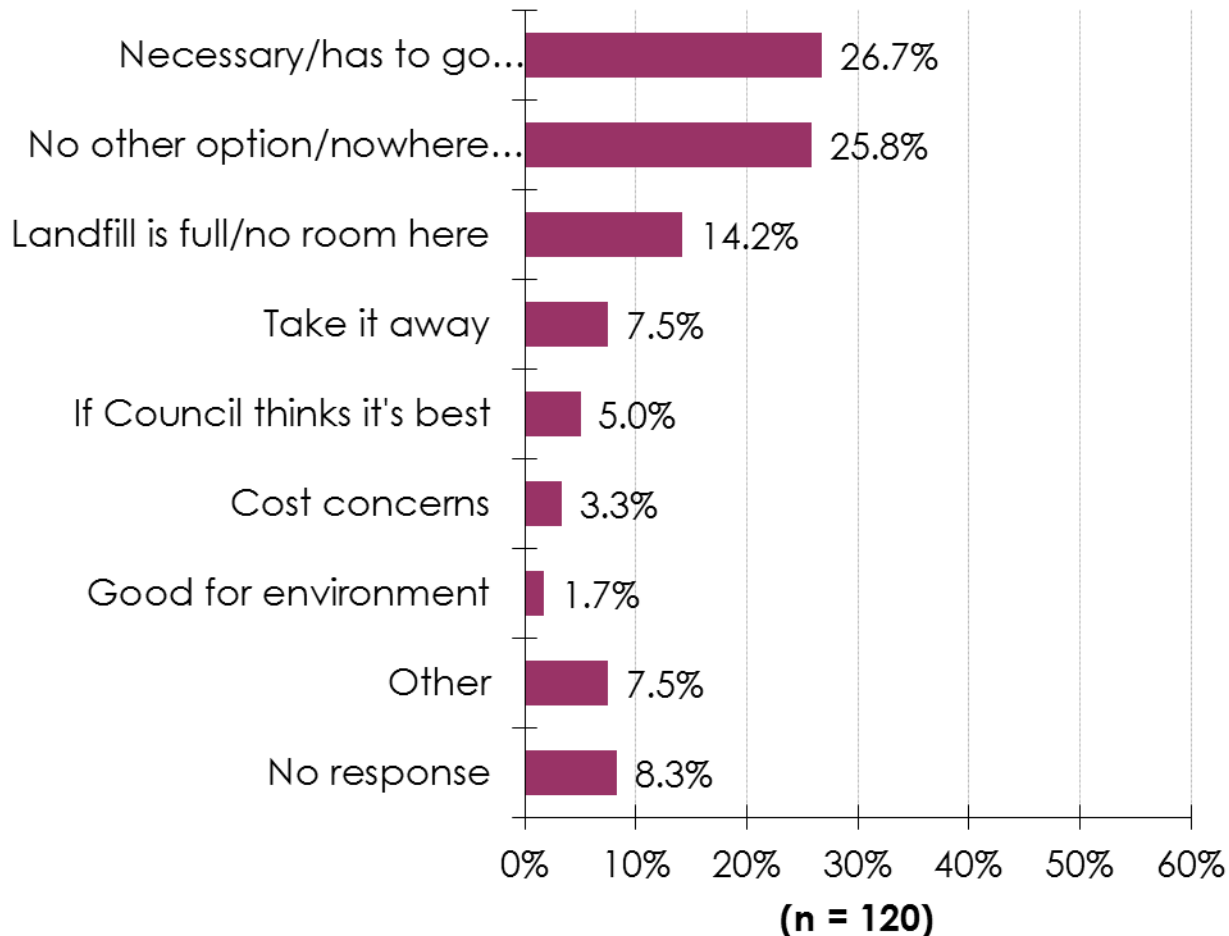
Key results:

- Overall, the average supportiveness rating was 2.71 out of 5, which is a low range score.
- There was no difference in average support according to the sex of the respondent.
- Respondents aged 18 to 29 years were significantly more supportive than those aged 50 or older.
- Ward 1 respondents (2.50) were significantly less likely to support the proposal to transfer waste out of the Shoalhaven compared to those who reside in Ward 3 (2.85).

3.2 Reasons for supporting transferring waste to other areas

The 120 (23.5%) respondents who supported the proposal to take waste out of the area were asked why they would support this proposal.

Figure 3-2-1 Reasons for supporting transferring waste to other areas



Key results:

- 32 of the 120 (26.7%) respondents mentioned that taking the waste out of the Shoalhaven was necessary or that it has to go somewhere, while 31 of the 120 (25.8%) mentioned that there was no other option or there was nowhere else in the Shoalhaven to put the waste.
- 17 of the 120 (14.2%) respondents said they supported hauling waste out of the area because the landfill will be full and there won't be room for it inside the area.

- A further 9 of the 120 (7.5%) respondents said that they didn't want the waste stored in the Shoalhaven area as they would prefer it to be taken away.
- 6 of the 120 (5%) respondents put their faith in Shoalhaven City Council to make the decision about waste management.
- 9 of the 120 (7.5%) respondents provided a response that was unable to be categorised. These other responses are listed below:
 - It does not affect me personally
 - Sorted at a major facility, this would be better
 - So you can use the new area that's now made available
 - Happy with service at the moment
 - They already do it
 - Because Ulladulla tip is busy all the time, it would take more people away from the tip and make it less busy and won't need to expand it.
 - We should try to minimise our waste firstly as a priority. We should be taught more regarding waste
 - So that waste is properly dealt with
 - More opportunity to build

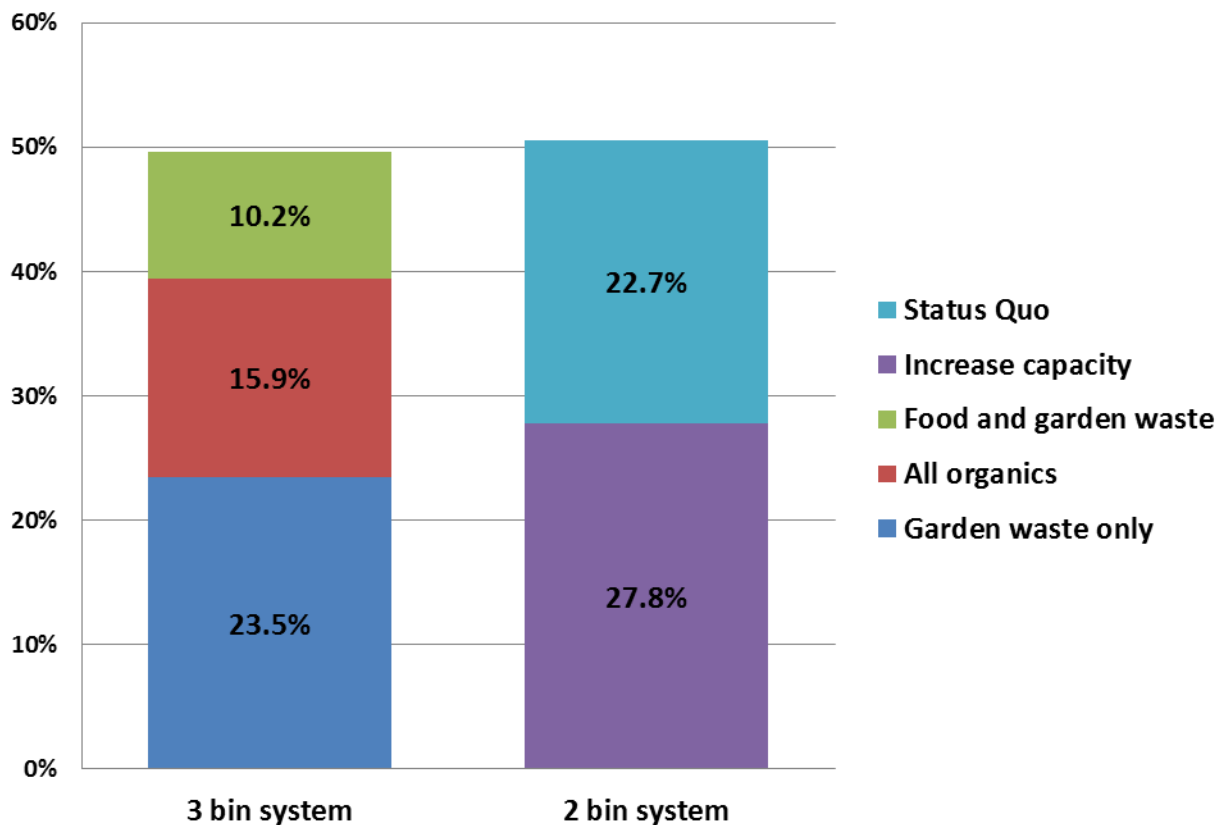
4 ORGANIC WASTE SOLUTIONS

Shoalhaven's heads of households were told that Council is considering changes to kerbside garbage and recycling services, by recycling more waste from the red top landfill bin.

4.1 Organic waste solution preference

Shoalhaven City Council posed two options for separating and recycling the organic waste currently placed in the red top bin; 1) provide a separate third bin for organic waste, or 2) increase the size of the red top bin to take more organic waste and use a special process to separate the waste. Respondents were asked to choose their preferred option.

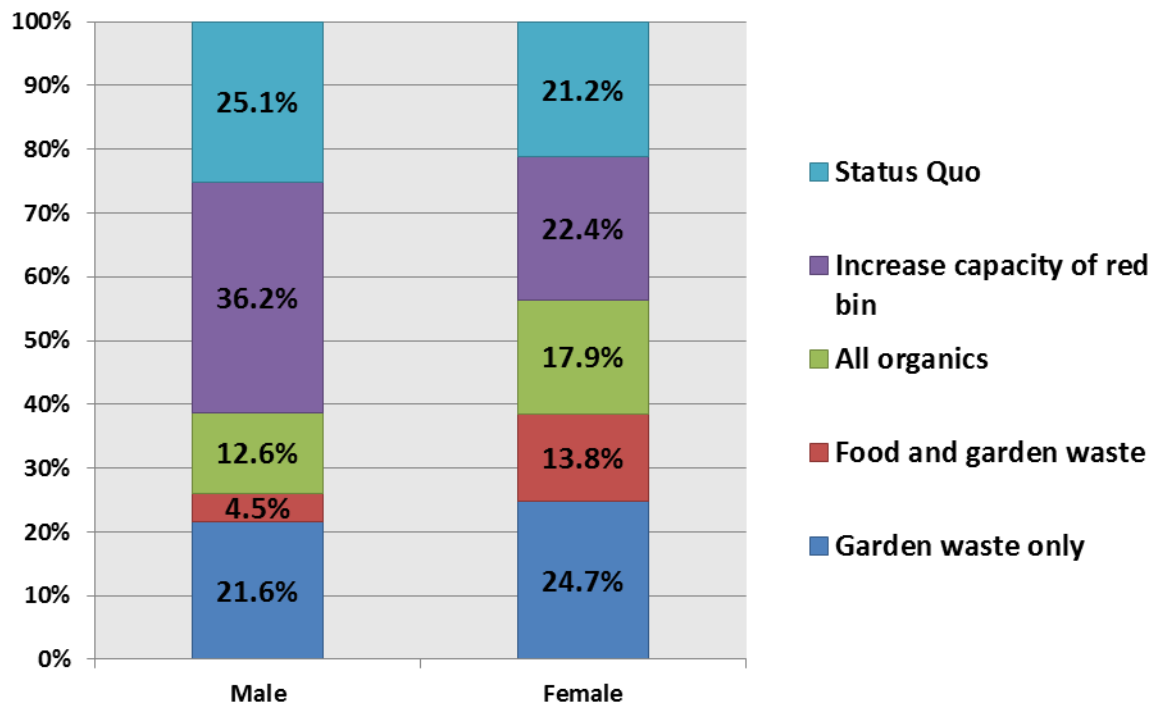
Figure 4-1-1 Preference for organic waste recycling options



Key results:

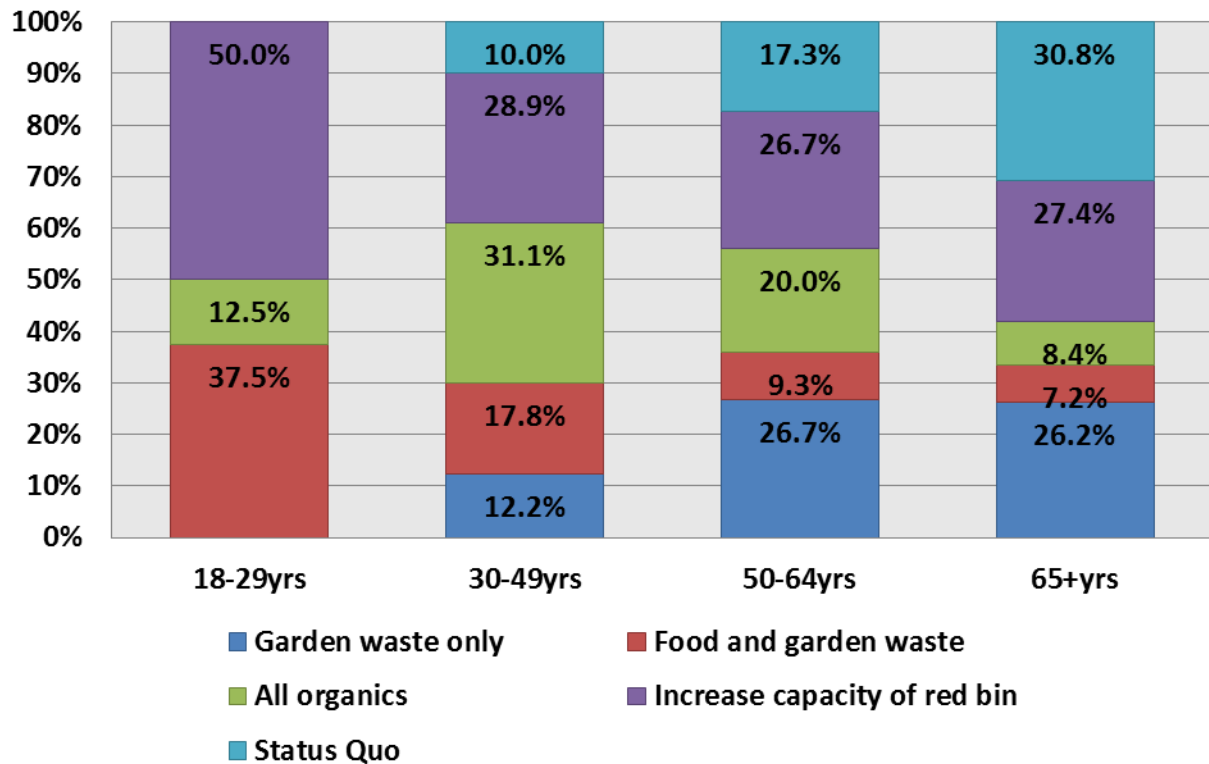
- Half of the respondents (49.5%) preferred the option of having a separate third bin for organic waste. Of these, 23.5% suggested they would prefer their third bin to be for garden waste only, 15.9% for all organics and 10.2% for food and garden waste.
- Just over a quarter of the respondents (27.8%) said that they would prefer to have increased capacity in their current red lidded landfill bin.
- Although a third option of neither was not read out to respondents, 22.7% said that they preferred the current service.
- Thus, the results were fairly evenly split between residents who would like to have a three bin system (49.5%) and those that would like to have a two bin system (50.5%).

Figure 4-1-2 Preference for organic waste recycling options by Gender



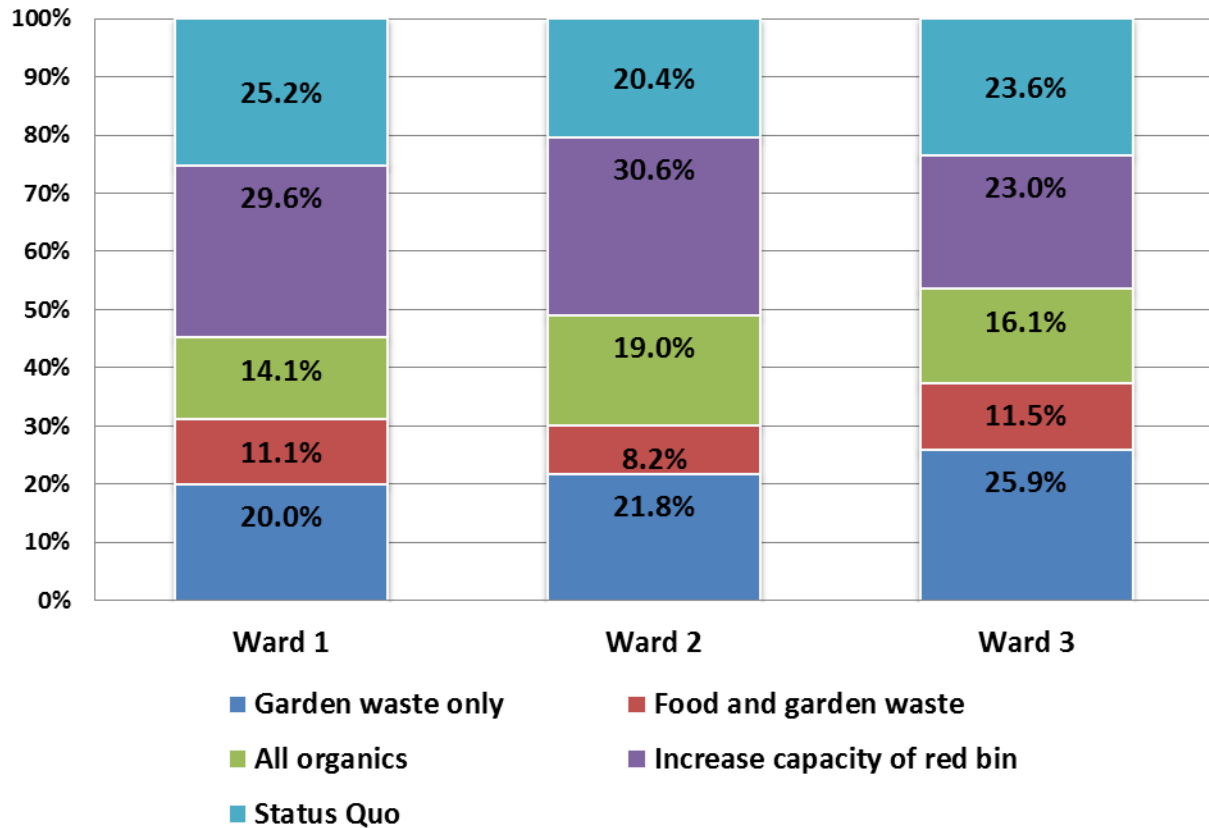
- Males were the most divided over the three options, with 38.7% preferring a separate third bin of which 21.6% wanted garden waste only and 36.2% preferring a larger red lidded bin and 25.1% preferring the current system.

Figure 4-1-3 Preference for organic waste recycling options by Age



- Preference results by age demonstrate that 37.5% of 18-29 years supported a third garbage bin for food and garden waste, while 50% indicated they would like to increase the capacity of the red bin.
- Support for the three bin system was highest amongst 30-49 year olds (61.1%), while support for retaining the two bin system as highest amongst 65+ year olds, with 30.8% indicating status quo and 27.4% wanting a bigger red bin.

Figure 4-1-4 Preference for organic waste recycling options by Ward

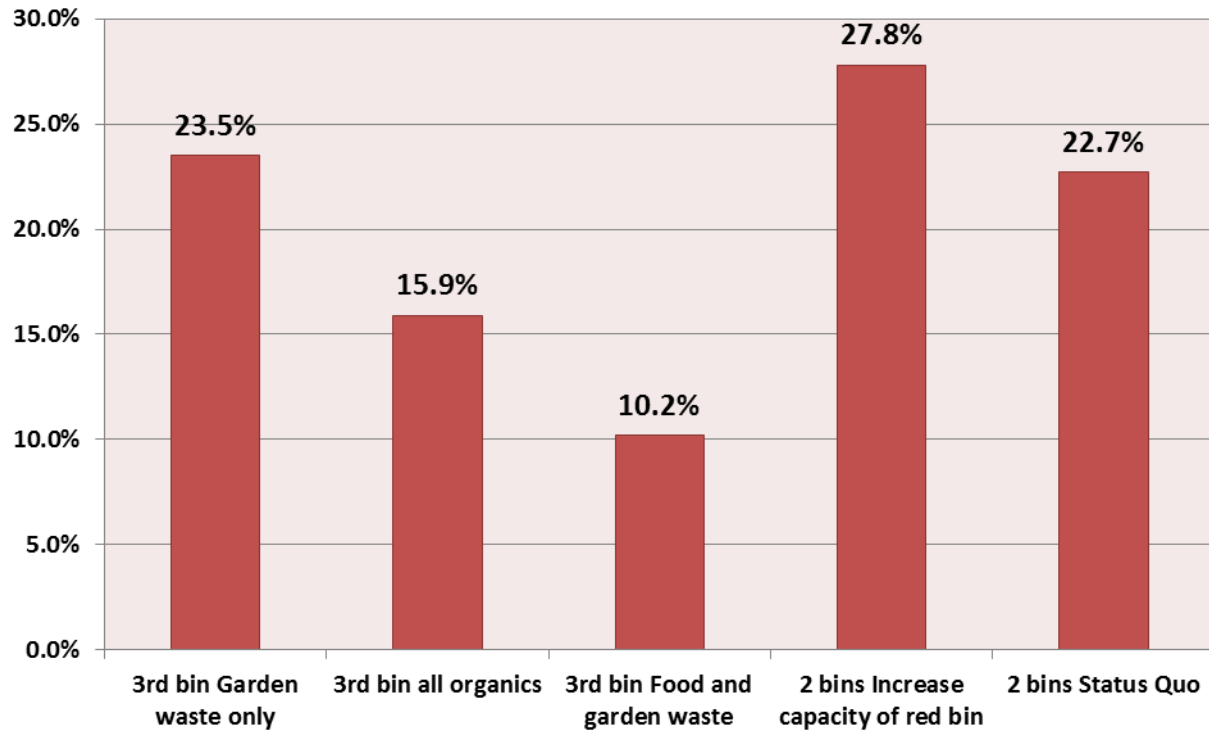


- The survey found minimal differences amongst the support of various waste recycling options across ward.

4.2 Summary of waste bin preferences

Figure 4.2.1 provides a summary of the preference levels for the waste options tested.

Figure 4-2-1 Summary of Preferences



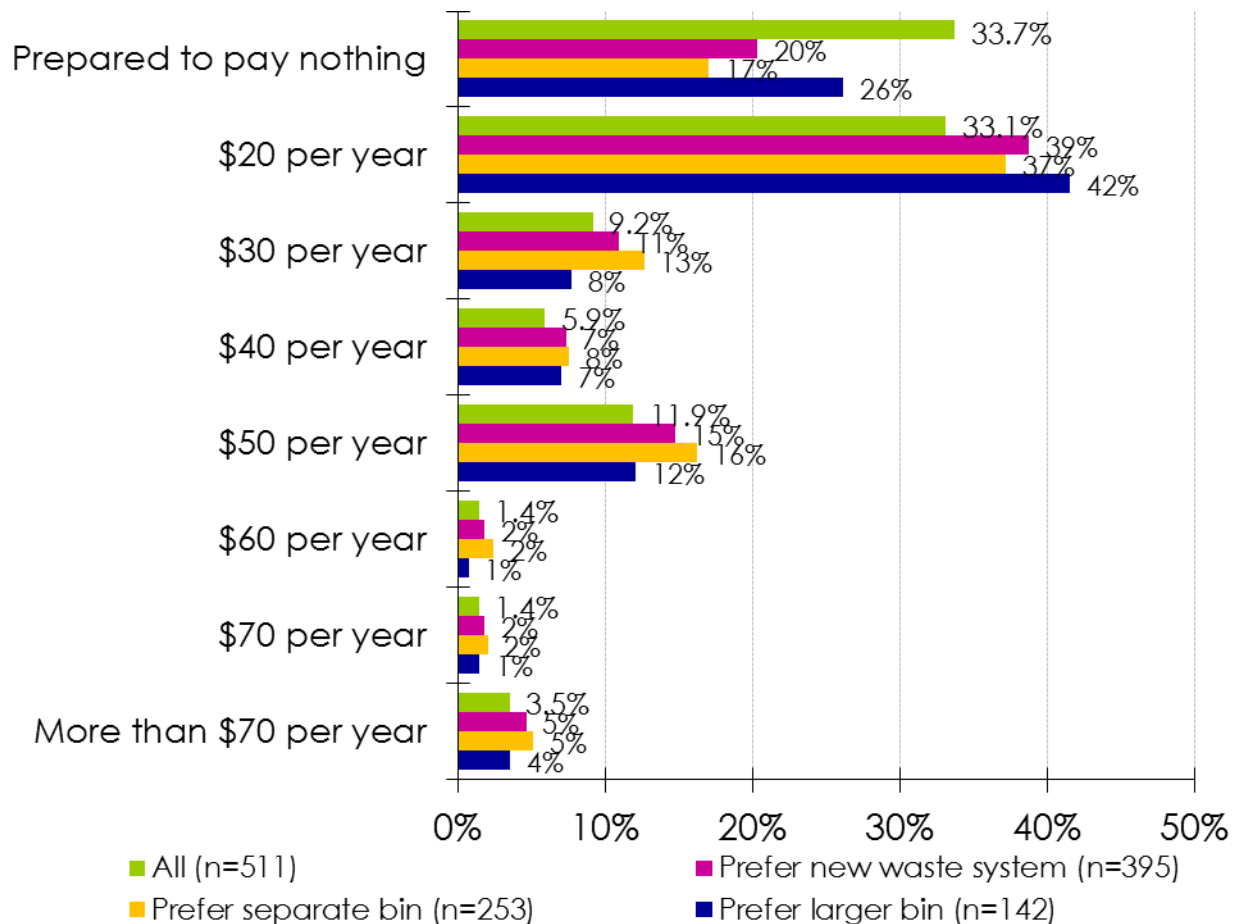
Key results:

- When combining the responses of those who prefer a two bin or three bin system the results suggest that if a third bin is introduced that those residents supporting this system would be satisfied with the third bin being used only for garden waste.
- For those who support the two bins system there is evidence that suggests that keeping the current 2 bin system would be satisfactory.

4.3 Willingness to pay for organic waste recycling

The respondents were told that there may be an additional cost for the new system, and that the current system costs an average of \$330 per year to householders. They were asked how much more their household would be willing to pay in order to recycle more.

Figure 4-3-1 Willingness to pay for new organic waste recycling system



Key results:

- Around one in three survey respondents (33.7%) said that they would not be prepared to pay anything extra to be able to recycle more. This was lower among residents who would prefer a new waste system, with just 17% of residents who would prefer a separate third bin stating that they would be prepared to pay nothing for this.

- 33.1% of respondents said that they would be willing to pay an additional \$20 per year to recycle their organic waste. However, 42% of residents who want a larger general waste bin would pay \$20 extra per year.
- One third of respondents (33.3%) would pay \$30 or more per year for the new recycling system, with 18.2% willing to pay \$50 or more each year.
- 25.7% of residents who said they would prefer a separate third bin would be willing to pay \$50 or more in additional fees for this new organic waste recycling system and 5% would pay more than \$70 per year.
- 67.6% of the residents who would prefer their current red lidded bin with increased capacity said they would be prepared to pay \$20 or less in additional annual fees.

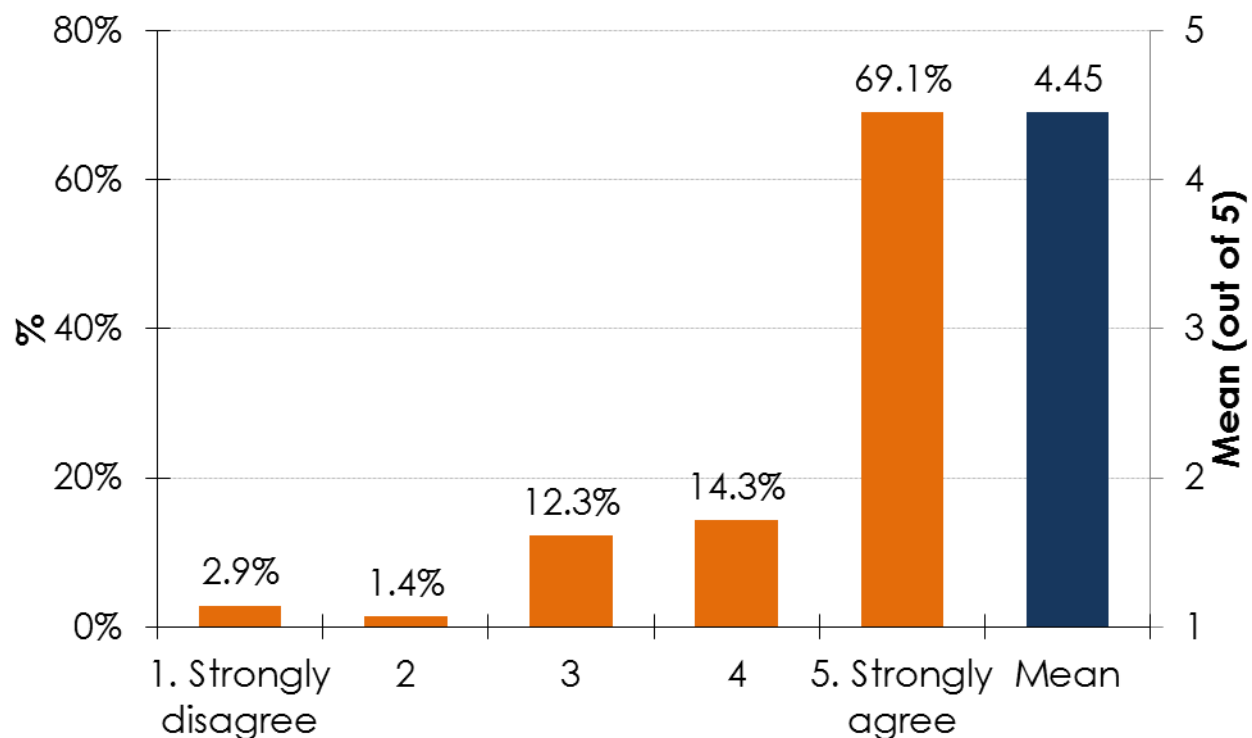
5 AGREEMENT WITH ORGANIC RECYCLING IDEAS

This section presents the results of questions, where Shoalhaven's heads of households were asked about their level of agreement with statements about organic recycling.

5.1 Organic recycling extends the life of landfill

Residents were asked to rate their level of agreement with the statement: "Recycling of organic materials extends the life of landfill", on 5 point scale, where 1 was 'Strongly disagree' and 5 was 'Strongly agree'.

Figure 5-1-1 Agreement – Recycling of organic materials extends the life of landfill



Key results:

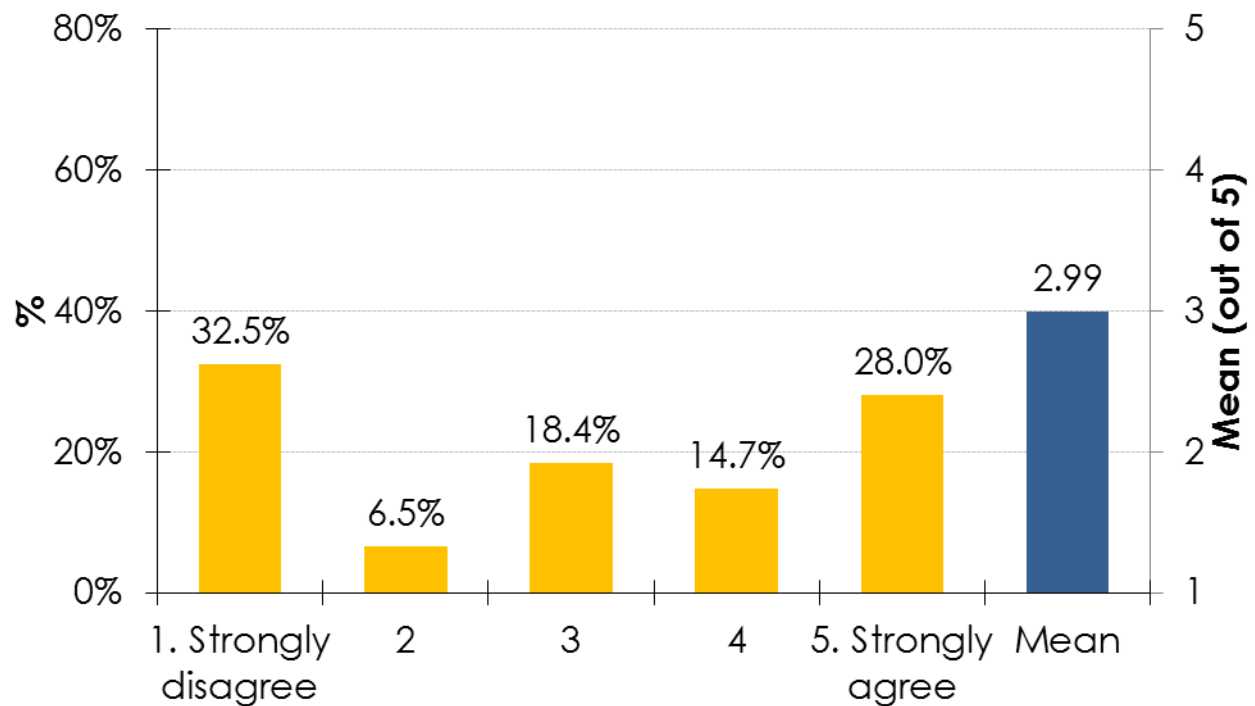
- 83.4% of respondents indicated agreement towards the statement that recycling organic materials extends the life of landfill.
- Around one in twenty respondents (4.3%) disagreed with the statement.

-
- The average agreement rating was 4.45 out of 5, which fall into the high range for agreement mean scores.
 - Further analysis showed that there was no statistical difference between the average agreement score according to age, sex or ward of residence.

5.2 Willing to pay more for organic recycling services

Residents were asked to rate their level of agreement with the statement: "I am willing to pay more for an organic recycling service", on 5 point scale, where 1 was 'Strongly disagree' and 5 was 'Strongly agree'.

Figure 5-2-1 Agreement – I am willing to pay more for an organic recycling service



Key results:

- 42.7% of respondents agreed that they were willing to pay more for an organic recycling service.
- Two in five respondents (39.0%) expressed disagreement with the statement that they are willing to pay more for this service, with 32.5% stating that they strongly disagreed.
- This statement achieved a mean agreement score of 2.99 out of 5, which is a low range agreement score.

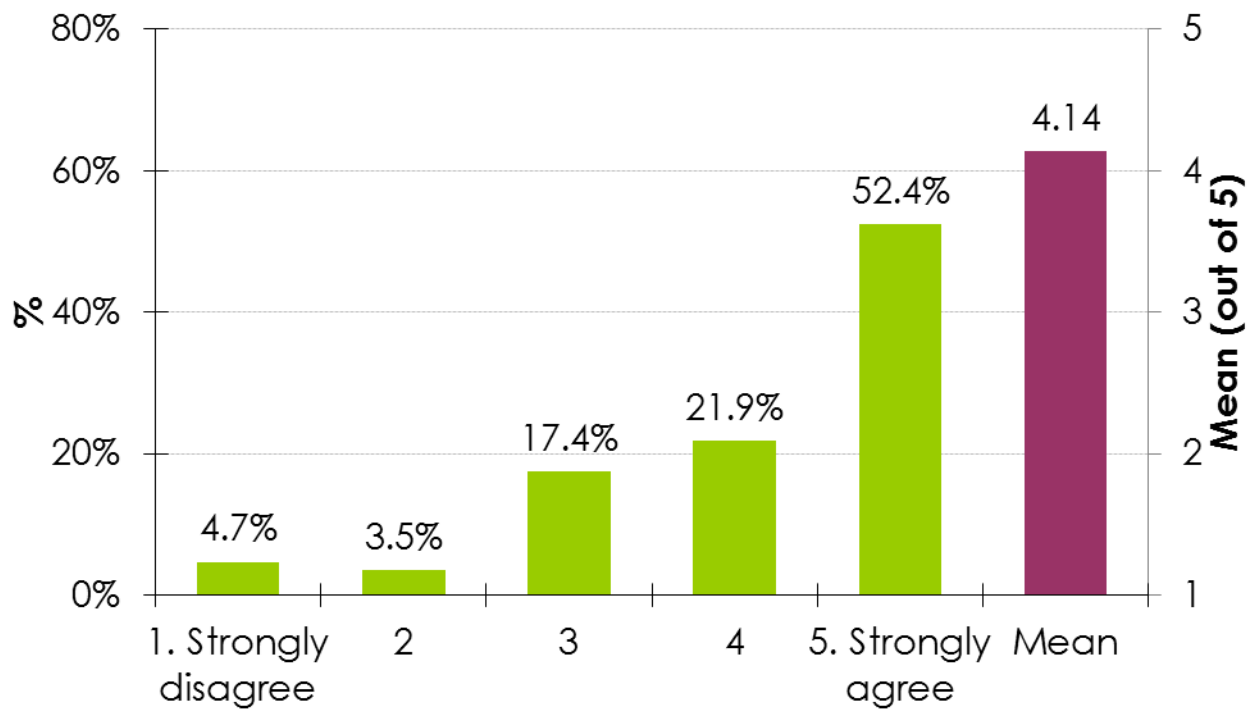
Further analysis showed:

- Females (3.16) were more likely to agree with this statement, compared to males (2.73).
- Respondents aged 30 to 49 years (3.39) expressed a significantly higher level of agreement with this statement compared to those aged 65 or older (2.81).
- There was no difference by ward.

5.3 Recycling organics provides resources

Residents were asked to rate their level of agreement with the statement: "Recycling organics is a good way for providing resources for sale in the area", on 5 point scale, where 1 was 'Strongly disagree' and 5 was 'Strongly agree'.

Figure 5-3-1 Agreement – Recycling organics is a good way of providing resources for sale in the area



Key results:

- Three in four respondents (74.3%) were in agreement with the statement that recycling organics is a good way of providing resources for sale in the Shoalhaven, with 52.4% agreeing strongly.
- However, 8.2% expressed a level of disagreement with this statement.
- The average agreement score for this statement was 4.14 out of 5. This is a high level score.

Further analysis showed:

- Females (4.27) had a greater tendency to provide a higher agreement rating compared to males (3.94).
- There was no difference in agreement with statement according to age or ward.

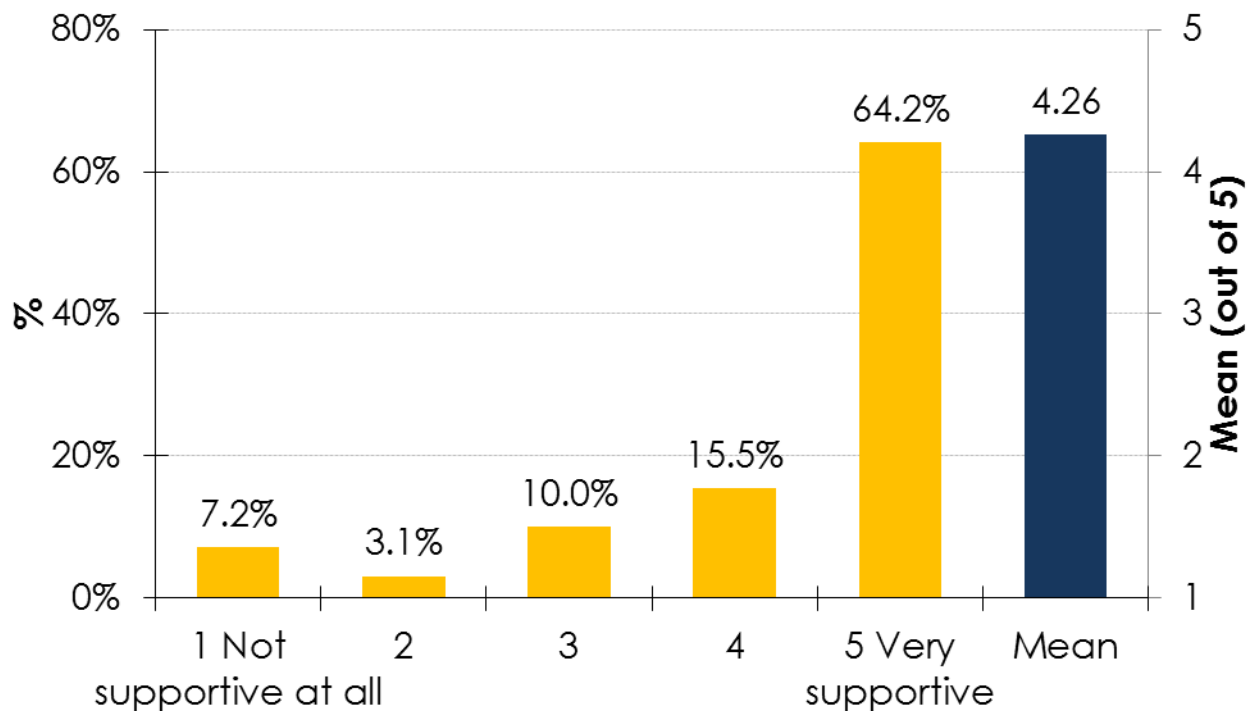
6 SUPPORT FOR PRODUCTS OF RECYCLED WASTE

This section of the report looks at whether residents are supportive of using products that are produced through processing waste.

6.1 Support for high quality compost

Respondents were asked to rate their level of support for using high quality compost that was produced through processing waste, on 5 point scale, where 1 was 'Not supportive at all' and 5 was 'Very supportive'.

Figure 6-1-1 High quality compost



Key results:

- In total 79.7% of respondents are supportive of using high quality compost that was produced through waste processing, with almost two thirds (64.2%) being very supportive.
- One in ten residents (10.3%) did not support using high quality compost.

-
- Using high quality compost created by recycling organic waste attained a mean support score of 4.26 out of 5.

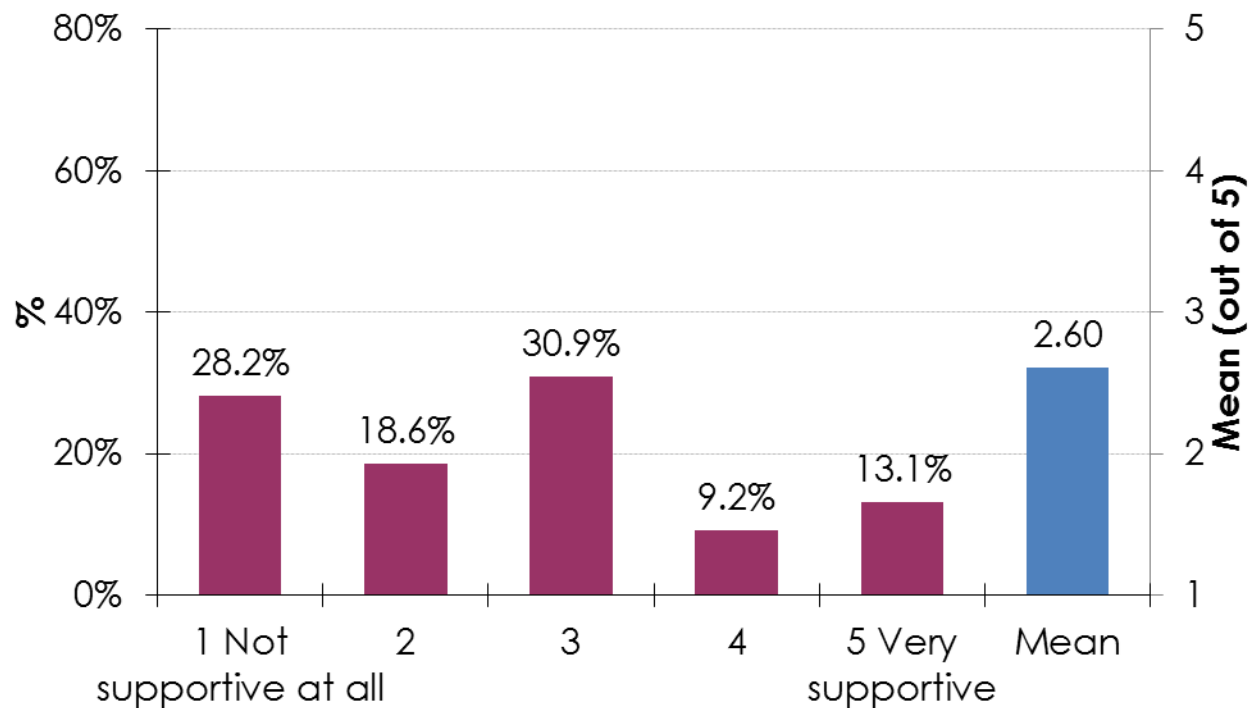
Further analysis revealed:

- Females (4.36) were significantly more likely to support using high quality compost compared to males (4.11).
- Respondents aged 65 years or more (4.12) were statistically less supportive of using recycled waste in this way than those aged 30 to 49 (4.46) or 50 to 64 (4.40).
- There were no differences according to the ward of residence.

6.2 Support for lower quality compost

Respondents were asked to rate their level of support for using lower quality compost that was produced through processing waste, on 5 point scale, where 1 was 'Not supportive at all' and 5 was 'Very supportive'.

Figure 6-2-1 Lower quality compost



Key results:

- Less than a quarter of respondents (22.3%) indicated support for using lower quality compost created through processing waste.
- In contrast, 46.8% of heads of households were unsupportive.
- The average support rating was 2.60 out of 5, which is a low level score.

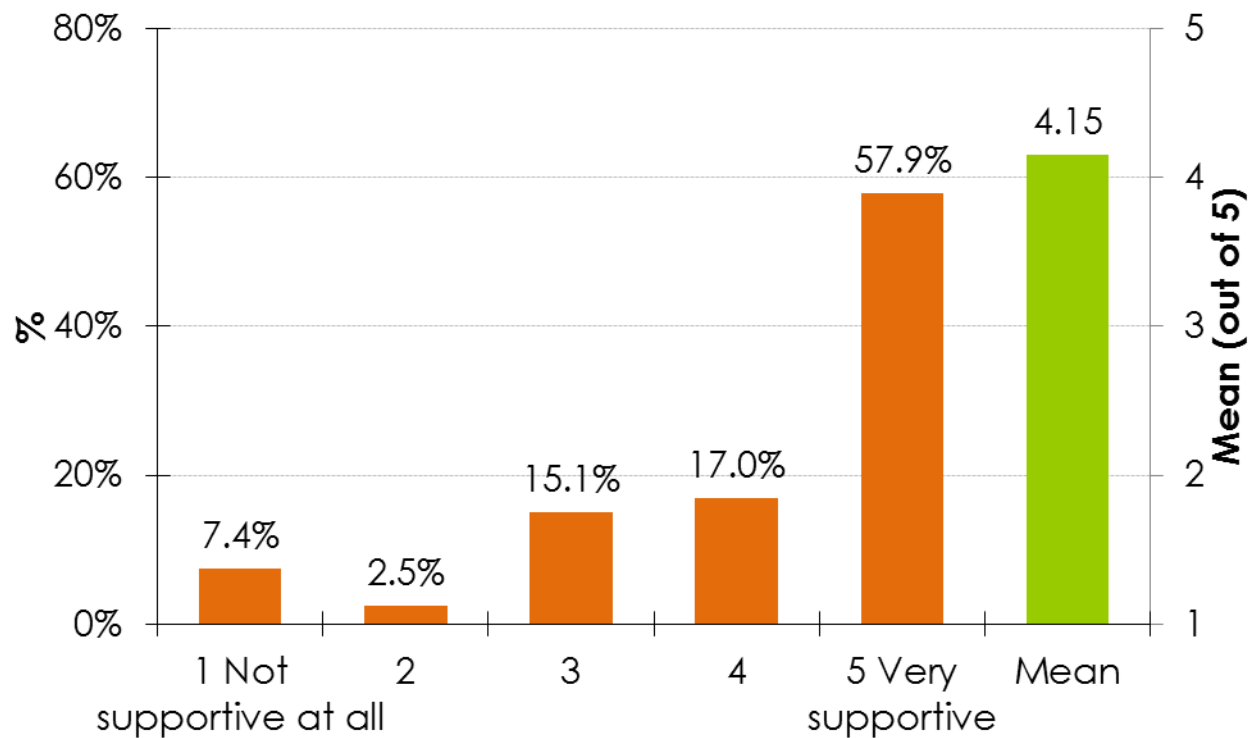
Further analysis revealed:

- Respondents aged 30 to 49 years (2.96) were significantly more likely to support using lower quality compost produced through recycling organic waste than those aged 65 years or more (2.45).
- There were no significant differences in average support scores according to sex or ward.

6.3 Support for electricity

Respondents were asked to rate their level of support for using electricity that was produced through processing waste, on 5 point scale, where 1 was 'Not supportive at all' and 5 was 'Very supportive'.

Figure 6-3-1 Electricity



Key results:

- Three in four respondents (74.9%) expressed support towards the idea of using electricity that was produced through processing organic waste.
- A tenth of respondents (9.9%) were not supportive of this waste product.
- The mean support score for this idea was 4.15 out of 5, which falls into the high range.

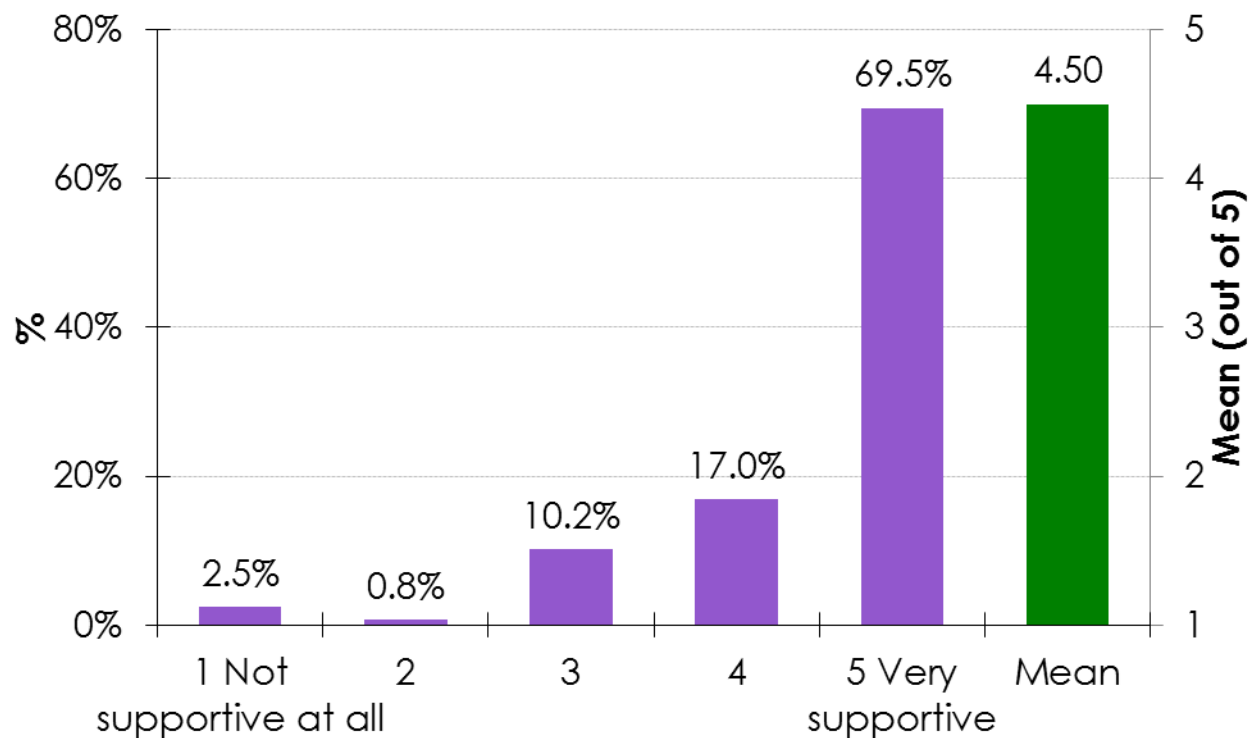
Further analysis revealed:

- There were no significant differences according to key respondent characteristics.

6.4 Support for products made of recycled materials

Respondents were asked to rate their level of support for using products made of recycled glass, aluminium and newspaper, that was produced through processing waste, on 5 point scale, where 1 was 'Not supportive at all' and 5 was 'Very supportive'.

Figure 6-4-1 Products made of recycled glass, aluminium and newspaper



Key results:

- Seven in ten household heads (69.5%) stated that they were very supportive of using products made of recycled glass, aluminium and newspaper, with 86.5% of respondents expressing some level of support.
- Just 3.3% of those surveyed were unsupportive of using these products.
- This idea achieved an average support score of 4.50 out of 5, which is a high score.

Further analysis revealed:

- There were no significant differences according to sex, age or ward.

7 FURTHER COMMENTS

Residents were offered the option of providing general feedback on Shoalhaven City Council's approach to waste management. Of the 511 residents surveyed 256 provided a comment.

The key themes that emerged from the feedback were:

- Preference for a green bin (45 responses)
- Concerns of cost (21 responses)
- Happy for things to remain the same (20 responses)
- The need to clean-up at kerbside (18 responses)
- Preference for an organic bin (3 responses)
- Preference for a bigger red bin (3 responses)

The content analysis found that 125 responses related to a positive statement for Council waste management approach and only 14 responses related to negative concerns.

Listed below are the individual responses from participants.

The results are included below.

Verbatim Responses:

- A green bin would be great for garden waste so as a pensioner it would be cheaper for \$30 per year I haven't got a trailer and it would also be convenient
- A green waste bin is long overdue, we should have what Wollongong Council have, pick up for bulky and white goods two times a year
- A third bin would also be good for garden
- All for anything to improve the environment
- Always wanted a green bin, used to have it in Sydney
- An extra yellow bin would come in handy for our household
- Anything to improve our waste use would be a good move
- Applaud research going into this
- Bring back council clean ups. Three times a year clean up. Getting to the tip is hard.
- Bring on the green garbage bin
- Cannot see why we are running out of land fill

- Changed the garbage pickup day Culburra beach area from Sunday to Wednesday which interferes with the holiday homes and other people have to take care of their garbage. It doesn't look very good.
- Clean-up every couple of months such as a kerbside clean-up
- Collection is quite good and efficient
- Consider what waste can be converted to energy - paper mill could have been useful if more research went into it.
- Cost concerns
- Cost is too high for green waste currently
- Could have kerbside clean-up
- Council does good job
- Council is doing a fine job on current pickup, would prefer morning pickup
- Council has good compost programs already going on. Some people will not support rates rising in order for new program to be set in.
- Council is doing a good job
- Council is trying with recycling
- Council need to address this issue
- Council over-charge the green waste when having to take it to them
- Council should not dump their rubbish onto other areas
- Decision needs to be made sooner rather than later
- Definitely need a bin for green waste
- Delighted that they are looking at the green waste
- Do a good job
- Do a good job but don't waste money
- Do a good job green waste bin is needed and will reduce tip fees
- Doesn't impact on producing methane
- Doing a wonderful job
- Doing pretty good and like the way that tips recycle goods
- Don't agree with putting up the price for waste management
- Don't think Council know what they are doing half of the time they are too educated to think they know it all
- Dumping of clean green waste for recycling should be free
- During the last flood we didn't get options to get rid of waste materials.
- Encourage more individual composting at home
- Extremely progressive they are doing a very good job

- Facility to buy compost products is needed.
- Favour in recycling as much as possible
- Feel sometimes that the tip is very expensive e.g. cost of dumping a mattress
- Fine at this stage but if costs increase I would not be happy.
- Generally councils seem to create jobs for arguably unnecessary projects but waste management is good
- Glad that council is looking at the landfill problem
- Glad that they considering changes to benefit the environment
- Glad to hear it is happening
- Glad to hear that Council is doing something about it
- Good approach to waste - addressing the landfill issue - endeavouring to make a difference not sure that they are achieving it.
- Good idea to do a double collection through holidays is great
- Good thinking for environment
- Great believer in recycling, council is doing ok
- Great idea if we recycling our organics and even better if we can buy it back.
- Great idea to recycle
- Great that council is trying to recycle as much as it can
- Green bin more responsive than organic waste. I don't know how the organic waste bin will work
- Green waste bin is great idea
- Green waste pickup service every week might be a good idea
- Green waste should be free to dump at the tip or recycling centre, compost should be returned to customers free.
- Green waste unit. Weekly recycling
- They can go for their life
- Happy and open to viable solutions, as long as it's not overly expensive
- Happy with Council's approach
- Happy with it all
- Happy with pick up service
- Happy with the council garbage collection and waste management
- Happy with the current pick up
- Happy with the new proposals
- Happy with the service provided
- Happy with the services at the moment

- Happy with the way it is now.
- Has to change - also considering the amount of people who are moving in to the district it's outgrowing itself
- Have a good recycling waste, have a free workshop, going helps to recycle the waste
- Happy with what we have, would be great if community has more education on how to recycle more
- Having more council information of recycling to the community
- Hope that the bigger red bin will fit garden waste also, perhaps divide
- Hope that they will give us a green bin and clean up waste once or twice a year
- Hope that will give it good consideration and thought
- Hoping that garden waste was going to be looked after in the recycling process
- How can you run out of room
- I already make my own compost, Council has a good approach but it could be improved
- I already recycle and compost and have chooks I don't need organic waste disposal I do it myself
- I am 86, live on my own, I am satisfied with how things are for me
- I am happy with the garbage recycling as the way it is I am only a one person household packing should be reduced by manufacturers, I would not like to see a tip opened at Tomerong
- I am satisfied with the current system at present
- I do not like Council, no services in Greenwell Point
- I don't mind if they put the green bin out, as long as it is all done properly because I think they will only have a short time before it all fills up
- I don't think the Council provides enough recycling services which should be weekly and green waste bin or option
- I don't want a green bin
- I don't know enough about it
- I don't need a red bin much at all and don't want a larger one
- I feel that charging for the larger disposal such as mattresses results in having these items being dumped in the national park, therefore should be free of cost
- I just hope that they take it seriously and give it a good deal of thought. Someone has to come up with a good plan
- I liked the seminars on how to recycle, was effective
- I really wanted a green waste bin
- I think it is good at the moment

- I think a green waste bin is more useful than having to take it to recycling places
- I think isolated communities like Sussex Inlet in disposing of large quantities of green waste charged too much and should be allowed free smaller quantities particularly pensioners
- I think it is a good idea to consult the public
- I think it is good with the recycling centres it would just be good to have garden waste
- I think that Council is doing the best that they can using the resources that they have. Everything costs more, I am a pensioner and unfortunately our income doesn't allow it. They do the best with the funding that they have
- I think the cost of rates as they are should cover the cost of this new project
- I think the green waste bin is a good idea for the environment to reduce landfills and teaching our kids to recycle
- I think they are doing a good job
- I think they have to be environmentally savvy as possible and plan carefully for the future
- I think they should go for a third bin for green waste and organic as it will reduce landfill. If they do introduce it the community will need education behind it.
- I think they should have twice a year a pick-up service including a white good pick up service that residents could get rid of bulky waste items
- I would like a green bin for green waste
- I would like council pick ups for household items. Kerbside clean-up
- I would like something to be done to get rid of green waste as we find it hard when you are in your 80's
- I would like to have a green bin for green waste and other organic material
- I would like to see a scientific analysis of the options available I want it dealt with by a responsible independent body it is a great initiative taken by council
- I would like to see the old fashioned council clean up more often
- I would really like a green bin for garden waste
- If they are really genuine about the proposal they should act on it.
- If we have to pay additional rates we would prefer not to have the green bin: as we can recycle our own green waste.
- If you could dump green waste for free at the tip, you may not even need to introduce a new bin.
- I'm really in support of the green waste bin
- Increase the tempo towards recycling and earth friendly waste management, took costs of tipping things down, possibly free, should be more encouragement to separate and recycle more rubbish.

- Interesting that council is doing this survey, anything to make it work as long as appropriate people are targeted to pay for it
- It difficult to make valued judgments in response to impromptu surveys such as these. Regarding the waste perhaps there should be a different approach for the villages compared to the city of Nowra
- It has to be economically and have a real financial value
- It is good that they are thinking hard about it
- It looks good: would be great to have green waste recycling and accessing it for the yard.
- It needs more attention
- It's a good idea to give people the information about recycling
- It's a good thing that they are thinking and involving the community
- It's a grab to increase what we already pay which is ample
- It's about time that they get it right
- It's good that they are looking at it
- Its great with what they are doing
- Keep doing it
- Keep training people to recycle and to compost
- Kerb collection for bulky items needs to be available
- Larger bins not practical large bins are hard to move yup driveways charging more for a 3rd bin needs to be re though using organic should make it more cost effective
- Like the proposal for third bin. But no cost rises
- Love the fact that the yellow bin gets weekly collection over Christmas and new year
- Missed bins results in a lot of street litter otherwise is fine
- More encouragement of the yellow pick up weekly instead of fortnightly: like to see the green come into the community
- More needs to be done at the waste transfer centre at Ulladulla regarding recycling before it goes to landfill
- Need a green bin council do courses which are great
- Need a green waste bin, would like redtop bin picked up weekly
- Need a system where we can report broken bins or repair system
- Need bigger bins
- Need green waste bin
- Need to put more effort into utilizing green waste, reduced the tip fees, or supplying large green waste bins for the communities
- Needs to be more done to educate people about waste management

- Needs to be more written material sent thru the post. Maybe posters to educate people
- No problems with the current system: however would love once a week pick up
- Not happy with the tip being contracted out. That is the demanding attitude of the contractors
- One free kerbside clean up a year
- Organic mulch should be a free commodity for rate payers : couple of free loads per year
- Our red bin is big enough and have always wanted a green waste bin
- Overtime that we should have recycle bins for green matter
- Peak time at Christmas we need more services of emptying the bins
- Plan needs to go ahead, agreement
- Plastics, paper can be reverted to fuel to generate electricity
- Quite happy with the current pick up
- Quite satisfied with the garage pickup
- Really do need a garden waste bin
- Recycling bin could be collected once a week
- Recycling bin needs to be picked up more often. Red bin needs to be increased in size.
- Recycling to be picked up more regularly
- Reduce the cost of green waste removal as its being dumped elsewhere
- Satisfied with what they are doing at the moment
- Send out residents a list of what is recyclable
- Should burn in furnaces to create power stations rather than use landfill
- Should have enough room in the Shoalhaven to get rid of waste
- Should have had a green bin years ago
- So far it works well for us
- Sometimes white goods should be collected from the kerbside
- Steelworks closed down because of carbon tax. Electricity producing power stations burn coal which makes coke is taken to landfill. Steelworks have to burn coal to make coke to produce steel so therefore could use coke from power station
- Step in right direction
- Stop charging for green waste and compost should be for free methane gas is dangerous
- Strongly need a green waste bin - long overdue
- Supportive of proposals

- Supportive of recycling
- Supportive of whatever the council can do - I already recycle but the garden waste is a little harder to handle
- That I am support of anything they can do to reduce landfill waste recycling is good
- The green bin is a good idea and 10 years too late, with the current fire situation it is good to de clutter
- The green bin is imperative.
- The kerbside collection with the vouchers is better option
- The more recycling they do the better any scheme which maximises recycling and reduces landfill I support in an area which is predominantly farming there is a huge capacity to recycle organic waste
- The more you can recycle and reuse the better
- The private firm that does the garbage collection should be better monitored to keep a check that they are doing the right thing
- The red bin should be picked up every second week and recycling picked up every week
- The sooner they introduce a green waste bin the better
- The survey is good I feel guilty throwing my green waste into a bin that is going to landfill I would be happy to support something more productive and environmentally sound
- The timing of the bin collection service on Friday morning in Hyams Beach needs to be changed to a Tuesday morning as the bins stay out all week.
- The waste management is pretty good but they could do better
- There are councils that have a microchip on the bin so when bin is emptied a charge is laid to the resident. This creates pay as you go. In use in Maclean, north of Grafton.
- There are many retired couples in the Shoalhaven there are only two of us here and our red top bin is only ever half full the recycle bin is always full for the two us
- There should be more recycling of dumped furniture. Recycle goods where possible. More tip vouchers should be available
- There should more information on recycled products made available to rates payers
- They are a good council with rem's scheme they are trailblazers in many initiatives about recycling it is worth paying extra for
- They are doing a good job as they are
- They are doing the best they can
- They are going all right with the waste
- They are trying to do the right thing
- They are trying to make better use of waste and encouraging recycling

- They do a good job
- They need to continually re-think and come up with new opportunities for recycling
- They need to have a seriously look
- They need to more to make people aware of processing their waste and carrying out composting
- They need very large incinerators scattered throughout the country. Air can be re-used. Provide a solution to landfill.
- They should be kerbside clean ups. At least twice a year.
- Think bin should have a separator in red bin
- Think council is doing a good job to provide this service to help the environment but they need to prioritise in the infrastructure and look at what need to be done now e.g. roads, foreshore erosion, hospital, schools
- Think council should be more proactive in people who do not do the right thing e.g. not paying for garbage disposal
- Think it's an excellent idea
- Think that they are trying fairly hard already e.g. gas for electricity
- Think they do a good job overall
- Those that don't require it because they recycle already should not have to pay extra but on the whole it is a good idea
- Tip charges are too expensive: how will this impact
- Tip fees should be free for a car boot
- Tips to expensive and council should have at least a council clean twice a year like other council
- To all councils there should be special rates to pensioners e.g. tip fees
- To always be improving it and thinking about ways in which we can stop wasting
- To be able to dispose of old computers but happy with the current pickup
- Too many people dump waste and there's not enough tips. More recycling bins within places where people dump rubbish.
- Toured area. Seen recycled plants. What the council is doing now is sufficient enough.
- Trying to do more for our waste recycling and doing a good job.
- Trying to do something
- Using the tip is too expensive also ratepayers get free passes to the tip what about those who rent need to avoid things getting dumped
- Very disappointed because they will not pick up our garbage from the right of carriageway Shoebridge Lane, Termeil.
- Very good

- Very happy with the current pick up and like the green waste bin
- Very happy with the service: why don't we have a green waste bin:
- Very lucky to have our own waste management in Huskisson. People are very responsible for putting it into correct bins, but when holiday makers come that goes out the window
- Very satisfactory
- We are just two seniors in this house we are happy the way things are making compost is a good idea but we don't feel like paying for a service we don't require
- We are rural and happy with the service. Thankyou
- We definite need a new recycle bin for the garden waste but don't agree with it costing more due to the average of making compost as it will all average out and this should of been done years ago other councils have had it for years
- We have used the council tip and are very impressed with it
- We need a green waste bin and utilise the tip more often than twice a year: and a council clean up service at least once a year
- We need green waste bins here
- We recycle everything and we have two compost bins we are ok as we are
- We should have a kerbside mulching service two times a year that we should not be charged for
- We shouldn't have to pay for green pickup, should be sold back to the community in mulch
- We don't need the composting side at all and the garbage service should automatically put on new bin lids when they see them missing
- Why can't council do kerbside pickups 2 per year
- With recycling bin it is unclear what should or should not go in, all residents should be provide with signage on the bin
- Would like 4 tipping vouchers because people dump rubbish in the bush, hopefully stop that from happening
- Would like a green waste bin rather than a red bin
- Would like a regular pick up from council for large items at least twice free of charge
- Would like bins collected earlier in the day
- Would like council to provide a shredder for green waste.
- Would like green waste bin in the past
- Would like it if they provided a council pick up at least once a year
- Would like kerbside clean-up once a year
- Would like to see a council clean up twice a year
- Would like to see more accountability for recycling, collection services, the gases where it gets sold to and what council is making on it

-
- Would like to see that they run workshops for composting
 - Wouldn't want cost to rise a great deal

APPENDIX 1: SURVEY METHODOLOGY

Sample Design

A telephone-based survey aiming to secure a response from approximately 500 residents from throughout the Shoalhaven LGA was used. The survey unit was permanent residents of the Shoalhaven area who are household decision makers and can act as a household spokesperson. Respondents also had to be aged 18 years or older to qualify for an interview.

The sample base for the survey was the electronic White Pages. This sample is known to be sub optimal, as the churn of telephone numbers due to people moving and new numbers being added as dwellings are occupied affects about 12% to 15% of possible numbers. Furthermore, from previous research we know that the proportion of silent numbers is increasing and can be as high as 25-30% in some areas. To deal with these issues, IRIS uses a technique that starts with the population of numbers listed in the telephone book and adds new and unlisted numbers using the 'half open' method. In this method, all numbers were incremented by five to create new numbers in the 'gaps' between the listed numbers. The resultant universe of numbers was then de-duplicated to remove any numbers that may be repeated. This process was replicated five times to create a new theoretical universe of telephone numbers. This provided the opportunity for all potential numbers to be selected in the sample. This equal and known opportunity for selection is the first criterion of good random sampling.

Once the potential universe of numbers had been generated, a computer program was used to randomise the database. Following this, a sequential sample (eg. every 110th number) was extracted from the database. The sample was geographically stratified and evenly distributed within strata. This process gave a very even distribution of potential numbers across the whole survey area and within the three survey sub areas. Every household therefore had an equal and known chance of selection and every part of the survey area received a fair proportional representation in the final sample drawn.

Data Collection

The questionnaire was designed by IRIS Research in collaboration with Shoalhaven City Council. IRIS was commissioned to conduct the survey and provide the base analysis. The survey was conducted during the period 21st to 25th October 2013.

During the survey process, the person from the selected household who **usually deals with the garbage or waste related issues** was interviewed. This method eliminated respondents without experience with waste and recycling issues. If the selected person was not at home, call backs were scheduled for a later time or day. Unanswered numbers were retried three times throughout the period of the survey. These procedures ensure a good sampling process from the sample frame used. Interviews were conducted on weekday evenings between 4.30 p.m. and 8.30 p.m.

The survey was implemented under IQCA quality guidelines. Interviews were conducted using our computer-aided telephone interviewing (CATI) system. Continuous interviewer monitoring was used and post interview validations were conducted within five days of the close of the survey.

Response

At the end of the survey period, 511 completed interviews had been collected. Table 0-1 shows that a completion rate of 61.7% was achieved. That is, of all the households contacted, 61.7% completed the survey. This is considered a good response rate for a regional district.

Table 0-1 Survey Response Outcomes

Response sequence	Outcome
Completed Interviews	511
Refusals & terminated interviews	317
Valid contacts (Excludes disqualified – businesses, out of area, under 16yrs etc)	828
Completion rate	61.7%

Given the level of response to the survey and the fact that it represents a good random cross-section of the area the findings presented in this report provide a good basis for gauging community opinion.

Survey Accuracy

When analysing results for the entire sample, the maximum error rate will be about $\pm 4.5\%$ at the 95% confidence level, assuming a proportional response of 50%. Put another way, we can be confident that if the survey were to be repeated there would be a 95% chance that the new result would lie within $\pm 4.5\%$ of the result achieved in this survey.

APPENDIX 2: QUESTIONNAIRE

INTRODUCTION

Hello my name is from IRIS Research and we are conducting a waste survey on behalf of Shoalhaven Council.

May I please speak to the adult of your household, who is aged 18 years or over and who usually deals with the garbage or waste related issues?

The survey will take approximately 10 minutes.

SCREENING

S1. Are you currently an employee or elected representative of Shoalhaven City Council?

- 1 Yes [Terminate]
- 2 No

IF S1=YES I'm sorry you don't qualify to be interviewed. Thank respondent and terminate interview.

S2. Do you have a kerbside waste and recycling collection service?

- 1 Yes
- 2 No [Terminate]

IF S2=NO I'm sorry you don't qualify to be interviewed. Thank respondent and terminate interview.

Before we start I need to tell you that the information you provide will only be used for research purpose and is completely confidential. I also have to inform you that my supervisor may monitor this call for quality control purposes.

Q1 Which town or village do you live in?

- | | | | |
|----|---------------------|----|------------------------|
| 1 | Basin View | 29 | Kings Point |
| 2 | Bawley Point | 30 | Kioloa |
| 3 | Bendalong | 31 | Lake Conjola |
| 4 | Berrara | 32 | Lake Tabourie |
| 5 | Berry | 33 | Manyana |
| 6 | Bomaderry | 34 | Meroo Meadow |
| 7 | Budgong | 35 | Milton |
| 8 | Burrier | 36 | Myola |
| 9 | Burrill Lake | 37 | Narrawallee |
| 10 | Callala Bay | 38 | North Nowra |
| 11 | Callala Beach | 39 | Nowra |
| 12 | Cambewarra | 40 | Nowra Hill |
| 13 | Comerong Island | 41 | Old Erowal Bay |
| 14 | Coolangatta | 42 | Orient Point |
| 15 | Cudmirrah | 43 | Sanctuary Point |
| 16 | Culburra Beach | 44 | Shoalhaven Heads |
| 17 | Cunjurong | 45 | South Nowra |
| 18 | Curarong | 46 | St Georges Basin |
| 19 | Depot Beach | 47 | Sussex Inlet |
| 20 | Dolphin Point | 48 | Tapitallee |
| 21 | Durras North | 49 | Terara |
| 22 | Erowal Bay | 50 | Tomerong |
| 23 | Falls Creek | 51 | Ulladulla |
| 24 | Fishermans Paradise | 52 | Vincentia |
| 25 | Greenwell Point | 53 | Wandandian |
| 26 | Huskisson | 54 | Woollamia |
| 27 | Hyams Beach | 55 | Worrigee |
| 28 | Kangaroo Valley | 56 | Other (Specify: _____) |

Q2 Which of the following best describes the place where you live?

1. Freestanding house on standard size block
2. Freestanding house on acreage
3. Villa, terrace house, townhouse
4. Flat, unit or apartment
5. Other dwelling (Please specify: _____)

Q3. How many people are there living in your home?

Q4 Overall how satisfied are you with the waste management services that Council provides? Please rate on a scale of 1 to 5, where 1 is very dissatisfied and 5 is very satisfied.

1. Very dissatisfied
- 2.
- 3.
- 4.
5. Very Satisfied

IF Q4=1 or 2: ASK: Why are dissatisfied with the service?

Shoalhaven City Council is embarking on a project to deliver cost and environmental benefits to the community that can be found in diverting significant proportions of domestic and other waste streams from landfill.

This is necessary as landfill facility at West Nowra will reach full capacity within 10 years, and there is currently no alternative landfill available.

Q5 One option is to take waste out of the area. How supportive are you of the proposal to haul waste out of the Shoalhaven and transfer it to other areas. Please use a scale of 1 to 5, where 1 is not supportive at all and 5 is very supportive.

1. Not supportive at all
- 2.
- 3.
- 4.
5. Very Supportive
6. Don't Know/Can't say

IF Q5=4 or 5, ASK Q5W

Q5W Why would you support taking waste out of the area?

Your Council is considering changes to the kerbside garbage and recycling service.

The current kerbside service consists of a red top landfill bin and a yellow top bin for recyclables. In the proposals, there will be no change to the recycling bin. However things can be done to recycle more waste from the red top landfill bin.

In the red top bin, more than half of the waste is organic, which can be recycled. These organics mostly come in three different types: garden waste, food scraps and nappies.

Council wants to separate and recycle all of the organic waste currently placed in the red top bin and process it into a compost product. There are 2 proposed ways of doing this.

Firstly: Increase the size of the red top bin and use a special process to separate it out, OR
Secondly: Provide more bins for different waste types.

Both options will result in the organic waste being captured and processed into a compost product.

Q6 Would you prefer to have a separate (third) bin for organic waste or increase the capacity of your red top bin to take more organic? Remember that both options will result in the organic waste being captured and recycled.

1. Separate (third) bin
2. Increase the capacity of the current red lidded bin
3. Neither, I'm happy with the current service (DON'T READ OUT)

IF Q6=1, ASK Q6B

Q6B You said you would like a separate third bin. Would you prefer this bin to be for:

1. Garden waste only
2. Food and garden waste (This will require an additional kitchen caddy)
3. All organics (eg food, garden, tissues, newspaper, nappies - This will require an additional kitchen caddy)

Q7 There may be an additional cost for the new system. The current average cost to householders is approximately \$330 per year. How much more would your household be willing to pay in order to recycle more?

[READ OUT EACH AMOUNT MOVING UP THE SCALE]

1. \$20 per year
2. \$30 per year
3. \$40 per year
4. \$50 per year
5. \$60 per year
6. \$70 per year
7. More than \$70 per year
8. Prepared to pay nothing

Q8 I am going to read out a number of statements and would like you tell me whether you agree or disagree. I would like you to use a scale of 1 to 5 where 1 means strongly disagree and 5 means strongly agree.

- A. Recycling of organic materials extends the life of landfill
- B. I willing to pay more for an organic recycling service
- C. Recycling organics is a good way for providing resources for sale in the area

Q9 How supportive are you in using any of the following products that are produced through processing waste. I would like you to use a scale of 1 to 5 where 1 means not supportive at all and 5 means very supportive.

- A. High quality compost
- B. Lower quality compost
- C. Electricity
- D. Products made of recycled glass, aluminium and newspaper

Next, I just have a few brief questions relating to household data to help classify your answers.

Q10 Please stop me when I read out the age group you are in...

- 1. 18 to 29 years
- 2. 30 to 49 years
- 3. 50 to 64 years
- 4. 65 years plus

Q11 And you are a.....

- 1. Male
- 2. Female

Q12 Would you like to make any comments about Council's approach to waste management?

Q13 Would you like to be sent further information about Council's plans for waste management?

- 1. Yes
- 2. No

IF Q13=YES, ASK: Can you complete your details so that we can send you the information?

[IF REQUIRED: Please be assured that none of your personal information will be linked to your answers in this interview, nor will they be used for any other purpose than to contact you about the panel]

Surname: _____

Phone: _____

Email: _____

Postal Address

Street Number: _____

Street Name: _____

Suburb: _____

Postcode: _____

FNAME Finally, could you tell me your first name as my supervisor audits 1 in 10 of my calls as part of our quality control process?

That completes our interview. As this is community research, you can be assured that it is carried out in full compliance with the Privacy Act and the information you provided is only used for research purposes.

Again, my name is and my supervisors name is If you have any questions about this survey, or would like further information about IRIS Research, you can call our office between 9am and 5pm weekdays on 4285-4446. Thank you for your time.