



Creating markets for recycled resources

The Promotion of the Benefits of Recycled and Secondary Aggregates to the SME Sector of the Construction Industry

Project code:

WRAP Aggregates Research Programme AGG79-008

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1 Introduction

1.1 Background

WRAP is a major government programme established to accelerate resource efficiency by creating stable and efficient markets for recycled materials and products and removing barriers to waste minimisation, re-use and recycling.

The WRAP Aggregates Programme aims to promote sustainable use of aggregates resources by encouraging greater use of recycled and secondary aggregates and reducing the demand for extraction of primary aggregates. Stakeholder consultation has identified a number of barriers that have to be overcome in order to achieve this aim, which the Aggregates Programme is addressing through its aims and targets.

The Aggregates Programme is addressing barriers to more sustainable use of aggregates under five Themes. This study is part of Theme 5: Supporting Research to increase the use of recycled and secondary aggregates.

1.2 Objectives

WRAP wishes to commission this project to:

- Assess the contribution that SMES could make to the increase use of recycled and secondary aggregates (RSA)
- Identify the additional information needs required to meet their specific needs
- Identify effective methods for promoting RSA use to SMEs

This research is intended to result in the production of draft promotional material.

1.3 Methodology

The study has been conducted through:

- Telephone screening interviews with both users and non users of RSA
- Focus groups with both users and non users of RSA
- Qualitative face-to-face interviews and in-depth telephone interviews with users and non users of RSA

1.3.1 Screening interviews

Between 11th September and 25th November 2005, telephone interviews were conducted with 431 potential users of recycled and secondary aggregates.

The sample was drawn from a database of small and medium size construction industry firms who are potential users of recycled aggregates. Firms were selected at random from an industry database of construction company's in the following SIC codes:

- 45.21: General construction of buildings and civil engineering
- 45.23: Construction of highway, roads, airfields and sport facilities.

We sampled firms with between 20 and 100 employees – these are large enough to have a significant use of aggregates while not responding to environmental drivers in the same way as larger firms.

Initially, we sampled equally from the two areas where the focus groups were held: Reading and Manchester. Postcode data was used as an indication of location. Further sample was drawn from the West Midlands to generate potential respondents for the face –to-face interviews.

1.3.2 Qualitative study

The following qualitative research was also undertaken:

- Two focus groups with both users and non-users of RSA.
- Face-to-face interviews with SMEs construction industry firms. Eight interviews were arranged with a selection of users and non users of RSA.
- In-depth telephone interviews were carried out with two respondents who were unable to take part in the face-to-face study at the time arranged and were not able to propose an alternative time.

2 Research findings

2.1 Assessing the contribution that SMEs could make to the increase use of recycled and secondary aggregates

2.1.1 Defining the market

At the project outset, the target market for this work was defined as construction SMEs (between 20 and 100 employees) that used aggregates.

Whilst conducting the screening interviews we encountered a number of issues both in identifying these businesses and persuading them to engage in the research:

- **Identifying SMEs that have potential to use RSA.** We experienced difficulties in effectively targeting construction companies that both use and purchase aggregates (industrial and commercial builders, civil engineering firms and groundwork contractors). They are all included in the 'general construction' SIC (45.21) but only make up a small part of this group. There are also no trade associations to which all users of aggregate belong although some trade associations have a relatively large proportion of aggregates users.
- **Purchasing behaviour.** Some construction SMEs are not responsible for the purchase of the aggregate that they use. The aggregate can be purchased by either a head office or central purchasing department (if they are a subsidiary of a larger company) or the main contractor.
- **Terminology.** Depending on the nature of their work, different organisations use different terminology for the material they buy. This is a particular issue in communicating with some surfacing companies who appear to associate 'aggregates' with unbound stone and do not appear to consider the constituent aggregates within asphalt or concrete.

2.1.2 Profiling the market

We conducted screening interviews with 431 construction SMEs (selected by number of employees and SIC code as discussed in section 1.3.1). 62 of these firms used aggregate and are responsible for its purchase. The characteristics of this group are discussed below:

- **Sector.** The largest aggregates users were civil engineering and ground works contractors and sub-contractors, those involved in road surfacing, asphalt work and road maintenance. Among building contractors; house builders use small quantities of aggregates while those involved with commercial or industrial builds use more.
- **Project role – subcontractors etc.** 35% (n=22) in the target group always acted as main contractors and 15% always acted as sub-contractors. The role of the remaining respondents varied between projects.
- **Purchasing behaviour – who are the influencers etc.** As might be expected for the smaller organisations within the target market, a director, owner or buyer would be responsible for the purchase of aggregates as part of their financial responsibilities. However, in companies towards the larger end of the target market, purchasing is the responsibility of a dedicated purchaser or buyer.

- **Trade association membership.** 65% of businesses interviewed in the target market were a member of a trade association. The most common association being National Federation of Master Builders. Some of the larger users of aggregates were not members of any trade associations. 21% of individuals interviewed were members of a professional body or business association, the most common being the Chartered Institute of Purchasing and Supply.

2.1.3 Use of recycled and secondary aggregates

In order to assess the contribution that SMEs could make to the use of RSA, we asked all respondents in the survey roughly how much aggregate they have used in the past twelve months. Where respondents did not know how much aggregate they used, they were asked to choose between a set of banded figures. For the purposes of our calculations we have used the median value where respondents provided us with a banded figure.

The respondents used an average of 65,500 tonnes of aggregates a year, approximately 1,460 tonnes per employee.

81% (n=50) of respondents used RSA with, on average, 20% of the aggregates they purchase being recycled or secondary aggregates.

52% of those that use RSA (n=26) felt that the proportion of aggregates that they used in the last twelve months was greater than the proportion they had used in the previous twelve months and 34% (n=17) felt it was the same.

2.1.4 Awareness and understanding of recycled and secondary aggregates

In the screening interviews, respondents were asked how informed they felt they were about recycled and secondary aggregates in each of the following areas where one is very informed and five very uninformed:

- When you are able to use recycled and secondary aggregates instead of primary aggregates
- Where you can purchase recycled and secondary aggregates from
- The benefits of using recycled and secondary aggregates

Responses are shown in the graph below:

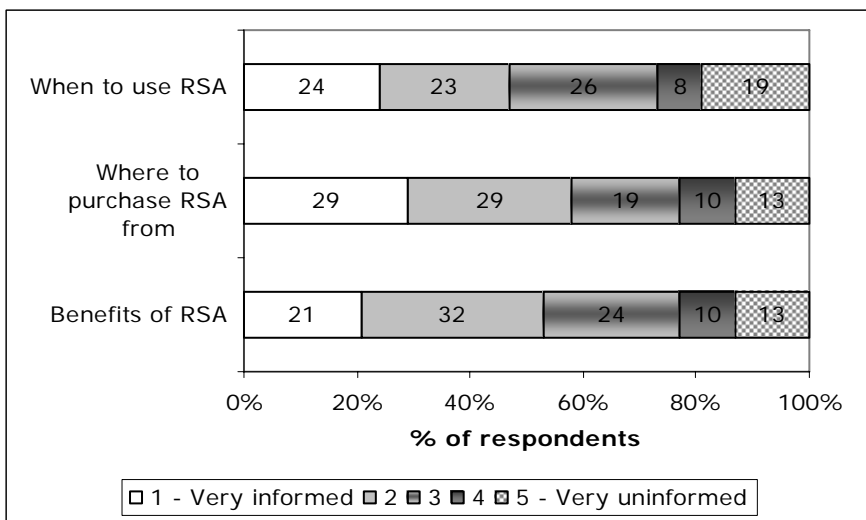


Figure 1: How informed people feel about RSA (n=62)

About 80% of respondents felt fairly or very informed (i.e. rating three or more) about when to use RSA, where to purchase it from and the benefits of using it. Those who felt uninformed typically used very little aggregate; between 20 and 1,600 tonnes a year.

However, interestingly, although about a quarter of respondents felt very informed about when to use RSA, the qualitative stage of the work revealed that some respondents saw opportunities to use RSA where others did not, even when they were working for the same client on the same type of project. Two respondents in the qualitative study were main contractors for Birmingham City Council undertaking road building and maintenance. One respondent never proposed using RSA for this work as he thought that Birmingham City Council only wanted to use “real stone”, the other respondent used RSA on around 20% of his work for the council.

Additionally, it became evident during the qualitative phase of the work, although contractors feel informed about RSA there is a certain stigma associated with using RSA as they referred to primary aggregate as ‘proper’, ‘real’ or ‘conventional’ – implying that they consider RSA to be a lesser material.

2.1.5 Drivers for use of recycled and secondary aggregates

During the screening interviews, respondents were asked to think about the most recent project where they used RSA and to explain why the decision was taken to use recycled and secondary aggregates. Responses are shown in the graph below:

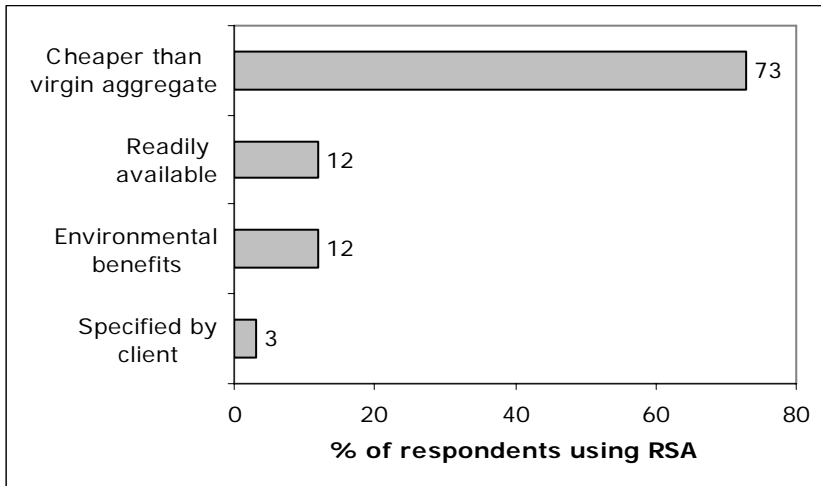


Figure 2; Reasons for most recent use of RSA (n=50)

Drivers for using recycled and secondary aggregates can be split into external and internal.

External

Client specification. If the end client specifies at tender stage that a project will use recycled or secondary material then the contractor will cost the project and source the material appropriately. In the qualitative study, three respondents cited projects where they were required to use RSA wherever possible. One respondent said that recycled material had been specified as this meant that the project would then be eligible for an EU grant.

Internal

Where the contractor has the responsibility for choosing, sourcing and purchasing the materials to be used on site, the following are seen as the benefits of using RSA:

Cost savings. The most common reason for using RSA was the fact that it is cheaper than primary aggregates. Therefore, companies will seek to purchase RSA wherever possible. Companies see these cost savings as either beneficial to them (i.e. it will increase project profitability) or beneficial to the end client, who can either save on total project cost through using cheaper suppliers or can use the cost saving through purchasing cheaper aggregates to increase spend on other areas of the project. The distribution of costs savings varies project to project dependent on contractual arrangements. Three of the respondents in the qualitative study set out the cost savings that would be achieved if RSA were used on the project in their tenders.

Availability. In the experience of the respondents to the qualitative study RSA is available as widely as primary aggregates. One respondent felt that RSA was more widely available than primary aggregates, as quarries “are few and far between”. Three respondents in the qualitative study also crushed materials on site which results in cost savings through not purchasing the material, transport cost savings and a readily available source of material.

Environmental benefits. Some respondents in the screening interviews cited the environmental benefits of using RSA. The environmental benefits were explained in the qualitative study. Two respondents felt that using recycled materials made them feel like they were “doing their bit” and also cited environmentally friendly action that they took around the home, namely recycling where possible and using energy efficient light bulbs. Two other respondents felt that using recycled materials where possible gave them a commercial advantage and included references to their environmental policies in their tenders in an effort to differentiate themselves from their competitors. However, for these respondents, the cost advantages of using RSA were still seen as the principal reason for buying them.

“We are aware that it is more environmentally friendly, and aware that it offers value for money - it is about 10% cheaper. Also the availability - it is easier to get hold of from our suppliers”.

“On a cost basis it is cheaper to used crush brick and stone, and the industry is lending itself to that. If it is asphalt or concrete is isn't so much of a choice, it is down to the engineer's approval”.

“It was the specifications by the Quantity Surveyor”.

“It was a private job so there were no objections. Normally there are problems about using recycled aggregates with the local authorities”.

“It is usually cheaper, depending on aggregate it can be between 10-15% cheaper as you do not have to pay tax on it. It is also part of our company's environmental policy, where we look at the various products we can use”.

“It is more economically viable and we would use recycled material more if the client and contractor would let us. The client specification specifies that we use the primary aggregate. They would rather have quarry material as it looks nice”.

“For the client it was based on environmental grounds as it is more environmentally friendly. For ourselves, it was cheaper and helped cost savings, was up to 20% cheaper”.

2.1.6 Obstacles to use of recycled and secondary aggregates

The obstacles to using RSA can also be split into external and internal.

External

Client specification. If the client specifies in the tender that the project cannot use recycled and secondary material, contractors will not propose that the project use recycled and secondary material. Where there is not a specific prohibition of RSA many contractors suggest using RSA. They do this at different stages of the project:

- As mentioned above, some contractors demonstrate within their tenders the cost savings to be achieved if RSA were used on the project. However, two respondents in the qualitative survey said that they never suggest using RSA at the tender stage; they would not want to 'gamble' with the tender.
- Following the tender and as part of the tender negotiations some contractors will negotiate the use of materials. This negotiation tends to take the form of a telephone conversation and may result in project costs being re-submitted. Where contractors have proposed the use of RSA and the client is not positive about it the contractor generally will not try and argue the case at this stage as they run the risk of losing the project.
- Some contractors do not suggest using RSA until they have won the project and are looking to purchase the materials. After sourcing the best prices, they will then have a telephone conversation or an informal chat with the client about which materials to use. Contractors and subcontractors have varying degrees of persuasion skills (as discussed below) and may or may not be authorised to use RSA as a result.

View on the quality of RSA. Many respondents felt that within the industry, RSA was widely and incorrectly regarded as of inferior quality to primary aggregates. However, none of the respondents in the study agreed with that view.

End clients. End clients were felt to oppose the use of RSA at various stages of the project:

- Some respondents believed RSA cannot be used on jobs for particular major clients e.g. city councils and the utilities companies. However, this is not necessarily specified at tender stage.
- Respondents felt that you are more likely to be able to use RSA on private sector jobs as the contractor had more decision making authority. Two respondents in the qualitative study, only use RSA on private work.
- Several respondents cited occasions where the use of RSA was prevented by the client's site manager. They can prevent the purchase of RSA if they are asked for authority to purchase RSA or, sometimes, they reject RSA when the material arrives on site. Two respondents cited occasions when they had purchased RSA and transported it to site at which point the site manager said that the material was good enough. These, and other respondents, believe that the site manager is worried about taking risks on the project and does not have the decision making power and authority to challenge the 'convention' of using primary aggregates.

Main contractors. Where respondents worked as subcontractors on projects, they reported that site managers employed by main contractors sometimes oppose the use of RSA. Like site managers directly employed by the end client, the site manager employed by the main contractor is worried about taking risks on the project and does not have the decision making power and authority to challenge the 'convention' of using primary aggregates. One respondent reported that RSA had been rejected by a main contractor's representative despite discussions he had had with the directors of the firm about using recycled material and their published material which states that they will purchase recycled material wherever possible. He felt that these discussions and publications were just 'lip service' and were not enforced.

Other individuals/organisations involved in the project. Respondents in the research cited other individuals and organisations involved in the project that can block the use of RSA at different stages of the project:

- **Architects.** Architects can specify in the project design the types of materials they want. Respondents felt that their intentions were purely aesthetic and they can specify at the outset of the project that primary aggregate is used because it “looks better”.
- **Structural engineers.** Respondents cited occasions where structural engineers prevented the use of RSA on projects, both at the design stage and on site. This was felt to be an issue both of attitude (the general perception that RSA is poor quality) and avoidance of risk. Some structural engineers do not want to accept liability if there are problems with a project and will therefore make every effort to ensure that materials are of, what they perceive to be, the highest standard.

Authority of the ‘sight test’ versus certification. It is not felt that quality certification was enough to persuade site managers etc. that the RSA they bought was fit for purpose. All respondents in the qualitative study discussed how any material that was brought onto site was subject to a ‘sight test’. Where the RSA did not pass this ‘test’, producing the certificate rarely convinced site managers that the RSA was fit for purpose and two respondents cited occasions where they have had to take the RSA away and purchase primary aggregates instead at their own cost.

Internal

Bad experience using RSA. Where respondents had had bad experiences of using RSA e.g. they have purchased RSA and then were not pleased with the quality of the stone that was delivered, they are less likely to use it. They do not rule out the use of RSA on projects but are less likely to suggest its use and certainly unlikely to try and persuade a client to use it,

Commercial risk. Some respondents are unlikely to suggest using RSA on a project or try and persuade a client to use it because they want to ensure a high level of customer satisfaction. Many contractors get their business through repeat work and would not want to compromise this by questioning the client’s specification.

Attitude. Despite outwardly supporting and promoting the use of RSA, there is still some negativity towards the use of RSA (see section 2.1.4)

Powers of persuasion. Some contractors/subcontractors are more likely to suggest the use of RSA and be successful in persuading clients to use it for a variety of reasons:

In smaller SMEs, the negotiations with the client on which materials to use are carried out by a director who often feels more able to take risks than a buyer.

- **Personality.** Some respondents were more charismatic and persuasive by nature.
- **Client relationship.** Where respondents were in long term client relationships they felt much more able to try and persuade their clients to use RSA without feeling that this would compromise their relationship with their client.

“We work to other people’s specifications and just follow what we are told”.

“Normally because when we do jobs, we don’t do huge jobs we just realise for example, we need a certain amount of aggregates say 10 tonnes and then we just get it”.

“It’s not something we choose to use”.

“9 out of 10 times we have specification by the local authorities to adhere to”.

2.2 Identify the additional information needs required to meet their specific needs

There appear to be two additional information needs for SME construction companies that could be using RSA or more RSA. These are discussed alongside effective methods for communicating this information to construction SMEs.

For some respondents there is a widely held belief that you can not use RSA on jobs for public sector and other major clients e.g. city councils and the utilities companies. However, this is not necessarily specified at tender stage. Other respondents did not have the confidence to suggest using RSA on projects or to try and persuade clients to use where it had been suggested but the client had reservations. We therefore suggest:

- Publicising assurance from end clients and main contractors that they have an active preference for using RSA on their projects wherever possible. It would be helpful to include major regional clients in this (e.g. local authorities and water companies).
- Providing contractors with the assurance that it is possible to persuade main contractors and end clients to use RSA. Contractors could be provided with case studies of where this has been done and the techniques that generally prove successful such as a combination of:
 - Producing certification
 - Citing jobs where they have successfully used RSA before
 - Demonstrating the quality of RSA by testing it on a small area.
- Contractors may benefit from additional tools to help them to persuade clients to use RSA. This could take various forms:
 - Technical data that contractors could provide to main contractors and end clients that demonstrates the comparative quality of primary aggregates and RSA.
 - A template text that contractors can put in their tenders which highlights the benefits to their clients of using RSA and reassures clients (with an indication of where this assurance has come from) that RSA is of the same quality as primary aggregates. This document could highlight the benefits of RSA use as:
 - Beneficial to the environment
 - Helping organisations to meet their Corporate Social Responsibility
 - Cost effective.

Respondents in the qualitative study generally felt that communications from WRAP were best distributed through the trade press, particularly Construction News.

Communications should be on a regional as well as a national basis – press releases to the “business” pages of local and regional papers would be a good way to publicise the material.

Trade bodies could also be an effective dissemination route; many of these have local groups or regular mailings to their members.

Major clients with a commitment to RSA could be used to communicate the information to their suppliers (and specifiers working for them) as most of these suppliers will also work for other clients who may be less committed to RSA. This would have the added benefit to those committed clients of publicising their sustainable behaviour.

As none of the respondents in the qualitative study were familiar with WRAP prior to taking part in our research, it was not seen as an authoritative body and most felt that any communication directly from WRAP that was branded as such, was likely to be ignored or read and disregarded purely through unfamiliarity. However, WRAP may have more authority with clients and as such could be used on material intended for clients.

It was additionally noted during the face to face interviews that some of the target market did not use computers. Therefore, any purely web based communication would not reach some of the target market.

3 Screening Questionnaire

1: START

Questionnaire information
 Project name: Promotion of the Benefits of RSA to SMEs..... 1
 Written by: (MM) 2
 Questionnaire status: Final 3
 Approved by: John Barritt..... 4
 Date of approval: November 2005 5

2: VERS

Extract raw data prior to the change. Increase Version number (Code) with subsequent amendments of the questionnaire. Fill in Questionnaire log. Zip project run on previous version and save it in the "Out of the way" folder.

Version number

= > *
 si 1 > 0

7th June 2005 02

3: CHECK

Project manager to fill in while checking data

Checking status of the interview

= > *
 si 1 > 0

Data OK 1
 Correction 2
 Clarification 3
 Rejected..... 4

4: SIC

SIC CODE from database

5: POSTC

Postcode from database

6: EMP

Employees from database

7: AREA

Area from database

Reading..... 1
 Manchester..... 2
 Birmingham..... 3

8: F8

Respondent's contact details (phone number, company name, respondent's name)

..... 1

9: PHONE

Phone number

10:

CONAM

Business name
\$P

11:

TITLE

<Title>
\$P

12:

NAME1

First name <NAME1>
\$P

13:

NAME2

Surname <NAME2>
\$P

14:

INTRO

Good morning/ afternoon. My name is \$I. I'm calling from Databuild. We are an independent research company. We are currently doing some work for WRAP (Waste & Resources Action Programme), a government funded programme which promotes sustainable resource management. WRAP are looking at the use of aggregates amongst construction industry SMEs. Can I speak to someone about your company's use of, and purchase of, aggregates? (e.g. purchaser or buyer)

When respondent reached:

Repeat introduction as necessary Is now a convenient time to have a chat about this?

Possible issues:

- The interview will take no longer than ten minutes.
- All data that is provided to WRAP will be anonymised.
- The database comes from a commercial database supplier.

Continue	O1	
Busy signal	BS	=> /END
Definite appointment.....	AP	=> /CB
General appointment.....	GP	=> /CB
Left message.....	LM	=> /CB
No answer	NA	=> /END
General call back.....	LT	=> /END
Refused personally.....	RF	=> /END
Not allowed to speak to respondent	GK	=> /END
Number unobtainable.....	NU	=> /END
Quota full	QF	=> /END
Quote full - recontact	QR	=> /END
No longer in business.....	DD	=> /END
Call back after the end of field work period.....	VA	=> /END
Duplicate	DU	=> /END
Not in target sector (Does not use aggregates).....	NT	=> /END
Need fax/more information.....	FX	=> /END
Employees not in target sector.....	EM	=> /END

15:

REC

\$b

ALL RESPONSES WILL BE TREATED IN COMPLETE CONFIDENCE AND CALLS MAY BE RECORDED FOR TRAINING PURPOSES



16:

AGGUS

Can I just check, does your business use Aggregates?

- Yes 1
- No 2

17:

JOB

First I have a few questions about yourself and your business. What is your job title?

=> INTRO
 si AGGUS = 2

- Owner/Chief Executive/Chairman/Managing Director 1
- Manager 2
- Purchaser/Buyer 3
- Estimator 4
- Other 5

18:

ACT

Multiple response. Record verbatim and classify

What does your business do?

- Buildings - domestic 1
- Building - commercial and industrial 2
- Roads 3
- Groundwork 4
- Other, please specify? 5

19:

PROP

Need a percentage here, make sure it is no more than 100%! Don't Know=999

In what proportion of your work (by turnover) do you act as a subcontractor?

20:

EMPS

Approximately how many people are employed by your business? (If they are a subsidiary, refer to the part of the organisation they work in - company, division or site, not the whole group)

21:

SUB

Confirm from other question if obvious

Is your business a subsidiary of a larger company?

=> INTRO
 si EMPS<20

- Yes 1
- No 2

22:

TA

Is your business a member of any trade associations?

- Yes, which 1 0
- No 2

23:

PROF

Do you personally belong to any professional bodies/business associations?

- Yes, which 1 0
- No 2

24:

AGG

In tonnes, roughly how much aggregate, either unbound or in asphalt or concrete, have you used in the past twelve months? (if the respondent does not know annual use of aggregate in tonnes: - how much did you use in the last month? Is this more or less than a usual month? -



do you measure your aggregate use in other units? If so, how much have you used in the last twelve months?)

- Answer given in tonnes 1 0 => REAGG
 Answer given in other units 2 0
 Don't know 3

25: AGG1

Would you say the amount of aggregate you have used, either unbound or in asphalt or concrete, in the last twelve months was...

- Less than 50,000 tonnes 1
 Between 51,000 and 150,000 tonnes 2
 Between 151,000 and 250,000 tonnes 3
 Over 250,000 tonnes 4
 Still don't know 5

26: REAGG

Percentage

What proportion of these aggregates that you used in the past twelve months was recycled or secondary aggregates? By recycled I mean derived from reprocessing materials previously used in construction. Examples include recycled concrete from construction and demolition waste material and railway ballast. By secondary I mean aggregates usually by-products of other industrial processes not previously used in construction.

- None 1
 Between 1-100 % (record number) 2 0 => AMOUN
 Don't Know 3

27: NONE

To confirm

Can I just check/clarify, have you ever used recycled or secondary aggregates?

- Yes- We have used recycled or secondary aggregates 1 => AMOUN
 No- We have never used recycled or secondary aggregates 2 => INF
 Don't Know 3 => INF

28: REAG1

Would you say it was...

- Less than 5% 01
 5-9% 02
 10-19% 03
 20-29% 04
 30-39% 05
 40-49% 06
 50-59% 07
 60-69% 08
 70-79% 09
 80-89% 10
 90-100% 11

29: AMOUN

Was the proportion of recycled and secondary aggregates that you used last year greater, the same as, or less than the proportion that you used in the previous twelve months?

- Less 1
 Same 2
 Greater 3
 Don't Know 4

30:

INF

How informed do you feel you are about recycled and secondary aggregates in each of the following areas where one is very informed and five is very uninformed?					
	1 Very informed				5 Very uninformed
When you are able to use recycled and secondary aggregates instead of primary aggregates?					
Where you can purchase recycled and secondary aggregates from?					
The benefits of using recycled and secondary aggregates?					

33:

USE

Record verbatim and classify

Thinking about the most recent project where you used RSA. Who was responsible for the decision about whether or not to use RSA?

=> +3
 si NONE =2 OR NONE = 3 OR REAGG = 3

- We were..... 1
- The main contractor for the project..... 2
- The client 3
- Architect..... 4
- Consulting engineers..... 5
- Other, who? 6
- Don't know 7

34:

WHY

As far as you are aware, why was the decision taken to use RSA in this project?

- Answer given, please specify 1 O
- Don't Know..... 2

35:

OBJ

Were there any objections or reservations about the use of Recycled and Secondary Aggregates on this project. Who were the objections/reservations from and why were there objections/reservations?

- We had objections 1 O
- The main contractor for the project..... 2 O
- The client 3 O
- Architect..... 4 O
- Consulting engineers..... 5 O
- No objections..... 6 X
- Don't know 7 X

36:

CONS

Have you been involved in any projects where the use of recycled and secondary aggregates has been considered?

=> +4
 si REAGG = 2 OR NONE = 2

- Yes 1 => WHO
- No 2 => WCONS

37:

WHO

Who suggested the use of RSA?		
We did, why?.....	1	=> FOCUR
The main contractor for the project.....	2	=> SUGG
The client	3	=> SUGG
Architect.....	4	=> SUGG
Consulting engineers.....	5	=> SUGG
Other, explain.....	6	=> SUGG
Don't Know.....	7	=> SUGG

38:

WCONS

Unprompted. Record verbatim and classify

Why not. (Who prevented the use of RSA)	
We did, why?.....	1
The main contractor for the project.....	2
The client	3
Architect.....	4
Consulting engineers.....	5
Other, please specify.....	6
Don't Know.....	7

39:

NCONS

As far as you are aware, why has the use of RSA never been considered on any of your projects?

Answer given, please specify?.....	1	O
Don't Know.....	2	

40:

SUGG

Have you (i.e. the organisation) ever suggested the use of recycled and secondary aggregates?

=> +1

si USE=1

Yes, why?.....	1	O
No, why not?	2	O
Don't know	3	X

41:

FOCUR

Just to explain a little more about the work we are doing. Databuild have been commissioned by WRAP to look at the use of recycled and secondary aggregates amongst construction industry SMEs and to think about how WRAP could help increase that use? We are holding some focus groups in your area to explore this further. The group will be held on [date] for a couple of hours in the evening at [venue]. We will contribute £50 towards your travel expenses. Can I contact you nearer the time to confirm whether or not you will be able to attend?

=> +1

si NOT AREA = 1

Interested, will attend. Take details of availability	1
Might attend, take details of availability	2
Not interested.....	3

42:

FOCUM

Just to explain a little more about the work we are doing. Databuild have been commissioned by WRAP to look at the use of recycled and secondary aggregates amongst construction industry SMEs and to think about how WRAP could help increase that use? We are holding some focus groups in your area to explore this further. The group will be held on [date] for a couple of hours in the evening at [venue]. We will contribute £50 towards your travel expenses. Can I contact you nearer the time to confirm whether or not you will be able to attend?

=> +1
si NOT AREA = 2

Interested, will attend. Take details of availability 1
Might attend, take details of availability 2
Not interested..... 3

43:

QUERY

Thank you very much for your help. If, when I have had a chance to reflect on our conversation, I have any further queries would it be alright to come back to you?

Yes 1
No 2

44:

FINAL

That's covered everything that I wanted to ask. Do you have any other comments you would like to add?

Yes 1 O
No 2

45:

DAB1

Would you like to take Databuild's number or the Market Research Society freephone number? (Give respondent information as appropriate)

Databuild number - 0121 687 1144..... 1
MRS Free phone number - 0500 396999 2
Both..... 3
None..... 4

46:

NAME

Respondent name

47:

SKIP

=> +2
sinon => +1
si TIME>1

48:

TIME

=> *
si \$T

49:

INT99

Completed interview 99 => /END



50:**INT**

Interrupt call back.....	01	=> /CB
Interrupt don't call back	02	=> /END
(INTRO) Busy signal.....	BS	N
(INTRO) Definite appointment	AP	N
(INTRO) General appointment	GP	N
(INTRO) Left message.....	LM	N
(INTRO) No answer	NA	N
(INTRO) General call back	LT	N
(INTRO) Refused personally	RF	N
(INTRO) Not allowed to speak to respondent.....	GK	N
(INTRO) Number unobtainable	NU	N
(INTRO) Quota full.....	QF	N
(INTRO) No longer in business.....	DD	N
(INTRO) Call back after the end of field work period	VA	N
(INTRO) Duplicate	DU	N
(INT99) Completed interview.....	99	N
(INTRO) Not in target sector (Does not use aggregates)	NT	N
(INTRO) Need fax/more information	FX	N
(INTRO) Quote full - recontact.....	QR	N
(INTRO) No of employees not in target sector	EM	N

51:**CB**

\$CH

52:**F6**

Interviewer's comments

4 Topic guide

Introduction

- Introduce yourself and Databuild
- Objectives of work for WRAP: Understanding the use of recycled and secondary (RSA) aggregates amongst construction SMEs:
 - Carried out telephone interviews with construction SMEs
 - Series of focus groups with selected respondents from the survey
- Objectives for discussion:
 - Are there opportunities for increasing the use of RSA amongst construction SMEs?
 - What information do construction SMEs need with regards to using recycled and secondary aggregates?
 - How might WRAP promote the use of recycled and secondary to SMEs?
- All confidential – interview is being recorded to enable moderator to focus on discussion

Awareness and understanding of WRAP

- Have you heard of WRAP?
 - Where did you hear about WRAP?
 - What, if any, WRAP services have you used?
 - Why did you use these services? Did they meet your needs?
- If not heard of WRAP, a short explanation to be provided

Use of recycled and secondary aggregates

- Confirm information from screening interview:
 - How much aggregate you use a year?
 - What proportion of aggregate used is recycled and secondary aggregate?
 - Has this proportion increased/decreased or stayed the same since the previous year?
 - By how much? Why?
- (If no recycled and secondary aggregate used)
 - Have you used recycled and secondary aggregate in a one-off project? When? Why not used since?
 - Has the use of recycled and secondary aggregate ever been considered on a project you have been involved in?
- Have you used/do you use any other types of recycled material in your work?
 - If yes, what and why?
 - If not, why not?

Attitudes to use of aggregates and recycled and secondary aggregates

- What are the benefits to use of recycled and secondary aggregate?
 - Are these the same for:
 - Your business
 - Your clients
 - The project
- What are the obstacles to the use of recycled and secondary aggregate?
 - Are these the same for:
 - Your business
 - Your clients
 - The project

Consider such issues as:

- Cost of RSA relative to virgin aggregate
- Perceived quality of RSA
- Suitability for job
- Availability of RSA – both sourcing RSA and continuity of supply
- Transport
- Environmental issues
- Client spec/opinions
- Opinions of architects and other consultants

(Probe to determine whether these views are based on experience, recommendation or perception)

- What are the deal makers and deal breakers? i.e. the key obstacles and key drivers? Are they the same for all groups? For everyone within your organisation? everyone involved in the project? All clients?
- Thinking through the main obstacles:
 - Why is it an obstacle?
 - How could it be overcome?
 - What could WRAP do to overcome this obstacle?

Decision making process

- What are the decision making stages in deciding whether or not the project uses recycled or secondary aggregates? (e.g. tender stage, briefing stage, selecting materials supplier etc.)
- What are the roles of the following at each stage?
 - Client
 - Contractor
 - Supplier
 - Consultant

Who are the ultimate decision makers at each stage? Who are the influencers?

- From your experience:
 - Is the decision making process the same for all projects?
 - Is the decision making process the same for all clients?
 - What effect do different client relationships have on the decision making process?
- (Elaborate on answers given in screening questionnaire) Have you ever recommended the use of RSA on a project/discussed the use of RSA on a project with clients or other decision makers/influencers?
 - Why did you recommend this?
 - How did you try and persuade/advise?

Do you make other recommendations to clients e.g. on what materials to use? What do you advise on? How do discussions take place - formally/informally?

- Do you feel that you have all the information you need to decide whether or not to recommend or use RSA on a project? What other information do you need?
- Do you need to persuade other people on use of RSA both within organisation or external? Who? What information do you need to be able to persuade them/advise them on the use of RSA? How would you prefer to receive this information (Probe to understand: preferred media, timing, how authoritative it is)

Routes to market

- Where do you currently go for information:
 1. In running your business?
 2. On technical aspects of projects?
- How do you prefer to receive information? (e-mail, events, publications)
- What information would capture your attention in terms of:
 - Who it came from?
 - What format it would be in? (Explore issues of design, layout, tone, language, timing etc, as appropriate to preferred media)
- Do you have an example of a piece of information that has caught your attention? What was it and why did it capture your attention?
- Test the following sources of advice with them:
 - Case study on use of RSA from WRAP and/or
 - A web search of WRAP AggRegain site

Get immediate impact of information: What captures your attention? What would you like to know more about? Which bit did you read first? Why? Do they skim read or read one part in depth?

- Finally, how should WRAP make information relevant for construction SMEs? How should they make it authoritative?