

Evaluation of the Absorbent Hygiene Products Collection Trials in Scotland

Appendices



June 2013

Zero Waste Scotland works with businesses, individuals,
communities and local authorities to help them reduce waste,
recycle more and use resources sustainably.

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Front page image: Front cover of Perth & Kinross Council's AHP information leaflet

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Contents

Appendix 1 – Absorbent Hygiene Products: Logistics Scoping Report.....	4
Appendix 2 – Full Trial Results and Monitoring & Evaluation Methodology.....	24
Appendix 3 – Communication Materials for AHP Trials.....	54
Appendix 4 - Stirling Council Risk Hazard and Risk Assessment.....	68
Appendix 5 - Stirling Council AHP Pre-Trial Survey	81
Appendix 6 - Stirling Council Community Engagement Record	90
Appendix 7 - Stirling Council AHP Post-Trial Survey.....	91
Appendix 8 - Perth & Kinross Council Hazard and Risk Assessment	108
Appendix 9 - Perth & Kinross Council (Crieff) AHP Pre-Trial Survey.....	116
Appendix 10 - Perth & Kinross Council (Crieff) Community Engagement Record	125
Appendix 11 – Perth & Kinross Council (Crieff) AHP Post-Trial Survey	126
Appendix 12 – Perth & Kinross Council (Auchterarder) AHP Pre-Trial Survey.....	144
Appendix 13 - Perth & Kinross Council (Auchterarder) Community Engagement Record.....	152
Appendix 14 - Perth & Kinross Council (Auchterarder) AHP Post-Trial Survey	153
Appendix 15 - Perth & Kinross Council (Tulloch) AHP Pre-Trial Survey	171
Appendix 16 - Perth & Kinross Council (Tulloch) Community Engagement Record	179
Appendix 17 - Perth & Kinross Council (Tulloch) AHP Post-Trial Survey	180
Appendix 18 - North Lanarkshire Council Hazard and Risk Assessment.....	197
Appendix 19 - North Lanarkshire Council AHP Pre-Trial Survey.....	207
Appendix 20 – North Lanarkshire Council Community Engagement Record	216
Appendix 21 - North Lanarkshire Council Post-Trial Survey.....	217
Appendix 22 - Fife Council Hazard and Risk Assessment.....	233
Appendix 23 - Fife Council AHP Pre-Trial Survey	243
Appendix 24 - Fife Council Community Engagement Record.....	251
Appendix 25 - Fife Council AHP Post-Trial Survey	252

Appendix 1 – Absorbent Hygiene Products: Logistics Scoping Report



Logistics Planning for Absorbent Hygiene Products Collection Trial

March 2011

Zero Waste Scotland works with businesses, individuals, communities and local authorities to help them reduce waste, recycle more and use resources sustainably.

Find out more at www.zerowastescotland.org.uk

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1 Introduction

Background

Knowaste Limited has recently opened the UK's first absorbent hygiene products (AHP) recycling plant in West Bromwich, capable of turning AHPs into recycled products. Knowaste Limited is the first specialist recycling company to offer recycling facilities for the recycling of disposable nappies, adult incontinence and feminine hygiene products, known collectively as absorbent hygiene products or AHP's. The Knowaste facility in West Bromwich operates three shifts per day to process up to 36,000 tonnes per annum of AHP. The Knowaste process follows 6 main steps to create value products for onward reprocessing.

- Absorbent Hygiene Products (AHPs), which are used disposable nappies, adult incontinence products and feminine hygiene products, begin the recycling process by entering an autoclave that breaks them apart and sterilizes them. From here, the nappies are sent on to a pulper to begin processing.
- The next step washes the material and exposes it to a special chemical treatment to deactivate the super absorbent polymers. At the completion of this washing process, the plastic materials are removed and sent to a separate device for processing.
- Plastic components are again filtered and cleaned in a final washing cycle.
- The plastic is then compressed into small pellets that can be sold for easy reuse.
- Remaining parts of the absorbent hygiene product enter a screening process that captures any remaining traces of plastic and other organic material.
- To conserve resources throughout the recycling process, water is recaptured from each wash cycle and sent to an internal treatment device for clarification. The water is then reused in the Knowaste system.

Scottish Councils are now considering how they could develop collection systems for AHP material from households that could be recycled. AHPs are estimated to form 4.8% of household residual waste.

Scope

4 Councils have indicated that they are willing to carry out a 6-month trial of collecting AHPs from households, utilising different collection models. Trials are proposed to commence from April 2012, with support from Zero Waste Scotland for project management, monitoring of the participation and attitudes, operational issues and good practice as well as some financial support to assist the Councils.

Prior to the trials commencing and a contract being let for the main project management of the trials, Zero Waste Scotland require a contractor to carry out an assessment of the operational, logistical and risk requirements for each of the collection systems being proposed by the 4 Councils.

Objective

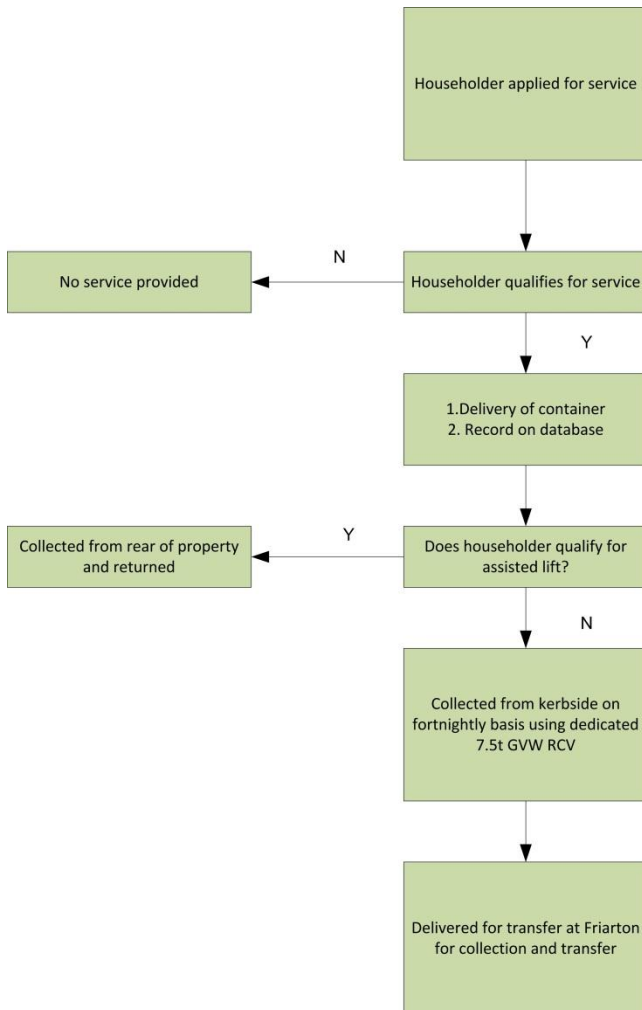
The objective of this work is to complete an assessment of the operational, logistical and risk requirements facing 4 Scottish Councils that are aiming to undertake a trial for the collection of domestic Absorbent Hygiene Products (AHPs) in April 2012.

2 Perth & Kinross Council

Description of Scheme

The collection scheme offered by Perth and Kinross Council will be provided as an opt-in scheme, with householders required to contact the Council via the contact centre to request a collection. The qualification criteria are likely at this stage to be based on whether or not they are householders in the trial area, the presence of children who require nappies, or the presence of elderly/infirm householders using sanitary products.

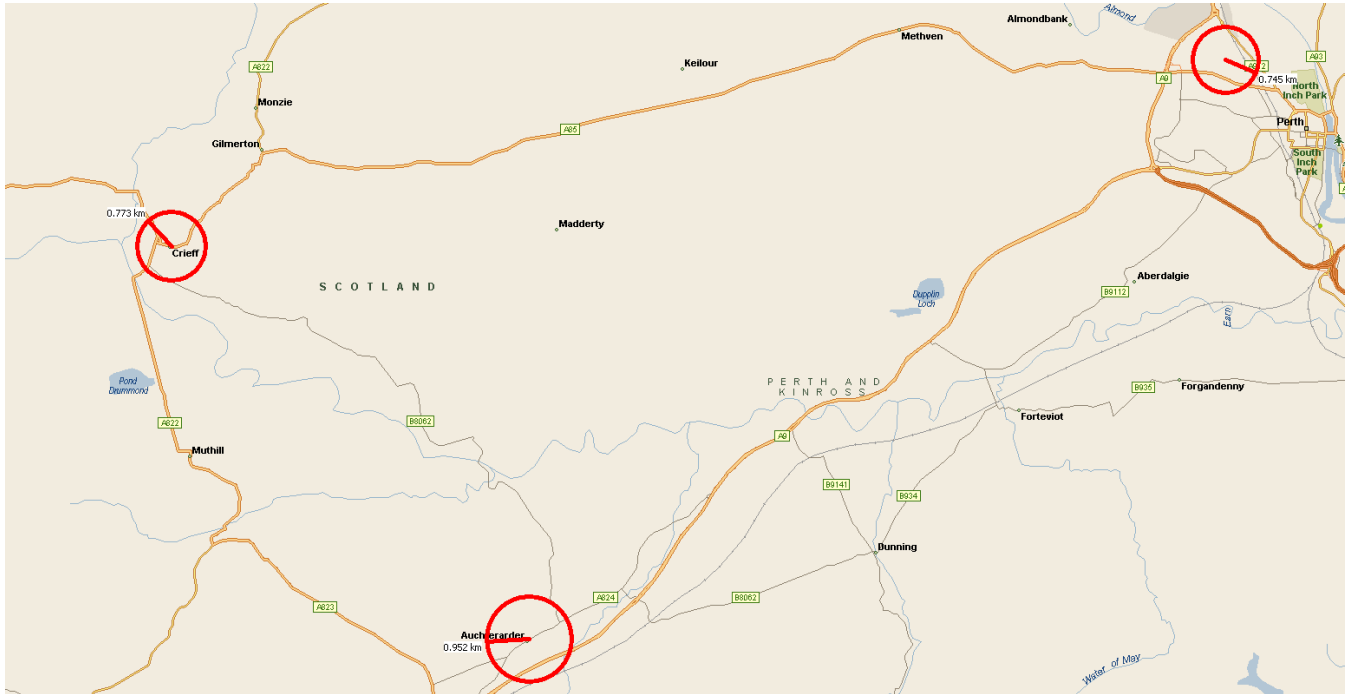
Figure 1 - Perth and Kinross Scheme



The householder will be registered as participating on the scheme and added to the collection route for that particular trial area, and bags/bins will be delivered on the next collection round. AHP collections will be from the kerbside on a weekly/fortnightly basis depending on the trial area, via a 7.5t RCV, and AHP waste will be transferred to the Friarton transfer station.

Perth and Kinross Council will undertake trials in three distinct areas, offering a different collection regime in each of the three areas, Auchterarder, Crieff and Tulloch.

Figure 2 - Perth and Kinross Trial Scheme Areas



The rationale for providing these differing options is to understand the impact that provision of a caddy makes to participation.

Table 1 - Perth and Kinross Scheme Areas

	Area	Container	Bags	Frequency
Option 1	Auchterarder	PHS	Tiger bag	Weekly
Option 2	Crieff	120	Tiger bag	Weekly
Option 3	Tulloch	No	Tiger bag	Weekly

The Householder Experience

2.1.1 Qualification for Service

It is anticipated that a criteria is required to assert which requests for participation should lead to participation within the trial. For the purposes of this trial it is considered prudent to ensure that any participants are able to participate fully, without complication, and that this should lead to capture of materials.

At this stage it is not considered prudent to include any elderly, infirm or disabled householders presently receiving assisted home care via NHS services, as this AHP waste is the responsibility of the NHS service provision.

It is suggested that any qualification criteria should ensure:

- That any participant has at least one child of “nappy” age, with the nappy requirement to be maintained for 24 weeks

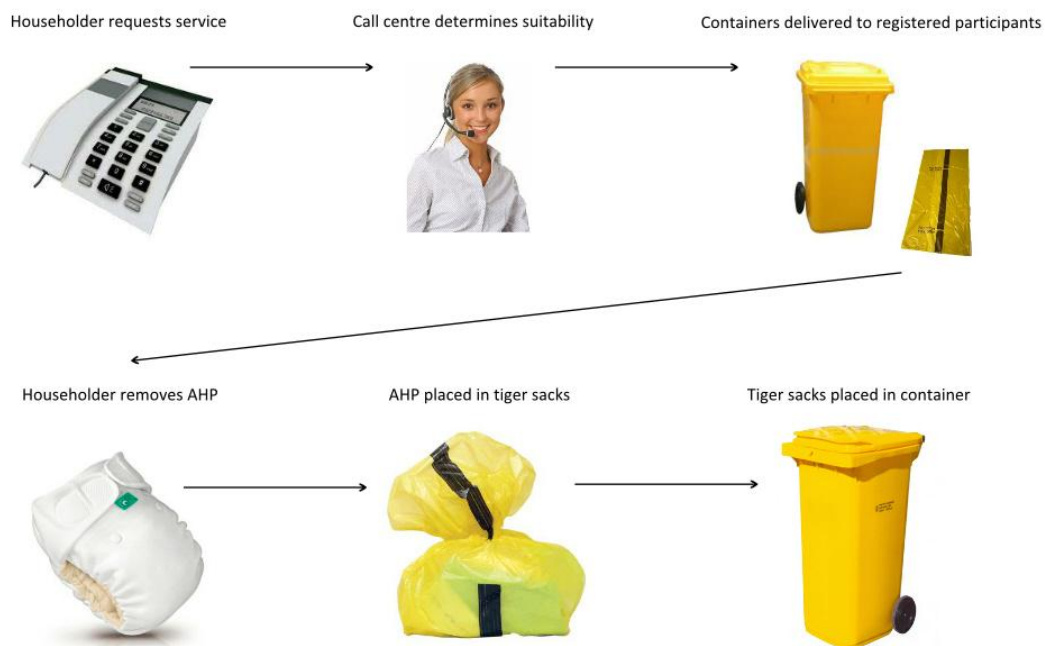
- That any adult incontinence participant is not presently on assisted home care
- That all participants are in kerbside properties, and not in tenement, four in a block or other high rise accommodation
- That any adult participant is cross referenced against existing assisted pull out lists to determine existing services
- That any family participant is cross referenced against existing lists to determine if additional residual containers have been requested to enhance suitability
- That any participant is located in one of the three trial areas

2.1.2 *Instructions to Householders*

The householder experience is considered crucial to the success of the trials, and clear communication will be vital to ensuring adequate uptake of the service and participation and capture. It is envisaged that the core elements of the trial in the Perth and Kinross area will follow two clear sets of instructions to householders.

Instruction 1 is for containment, either in the PHS style bin or in a 120 litre wheeled bin, as illustrated below.

Figure 3 - Illustration of Perth and Kinross Collection Scheme



The second instruction requires no container, and the tiger sack is placed on the kerbside awaiting collection.

Asset Requirements

The specific assets that require procurement prior to the commencement of the trials in the three distinct areas are outlined below:

Table 2 - Perth and Kinross Asset Requirements

Capital Items	Perth and Kinross (Auchterarder)	Perth and Kinross (Crieff)	Perth and Kinross (Tulloch)
Vehicle Costs	£720	£1,200	£720
Tiger Bag Cost¹	£3,600	£3,600	£3,600
Container Costs	£4,000	£4,000	£0
Total	£8,320	£8,800	£4,320

The total capital requirement for the assets is estimated at £21,440 for the duration of the trial period, assumed to be 24 weeks.

Scheme Costs

The scheme cost of the options outlined for Perth and Kinross is £39,752. The costs identified are pro-rata costs for a 24 week period, and are inclusive of vehicles, staff, containers, and tiger bags. This is equivalent to an average cost per household of £66.25.

Table 3 - Perth and Kinross Scheme Costs

PRO RATA Costs	Perth and Kinross (Auchterarder)	Perth and Kinross (Crieff)	Perth and Kinross (Tulloch)
Vehicle Costs	£720	£1,200	£720
Driver Costs	£2,866	£3,981	£2,866
Crew Costs	£2,866	£2,866	£2,866
Container Costs	£4,000	£4,000	£0
Tiger Bag total Cost	£3,600	£3,600	£3,600
Total	£14,052	£15,647	£10,052

¹ Prices at 5 tiger bags per household per week

Logistical Risks

Whilst there are physical risks apparent in the collection of AHP's, there are also some significant risks in the logistics of the overall scheme, which can impact on value for money and trial effectiveness.

It is anticipated that potential logistical risks include:

- Low capture rates
- Low participation rates
- High contamination rates
- Transfer and delivery costs to Knowaste at low levels of recovery

A risk matrix has been used to identify the need to incorporate risk abatement measures. Risk scores are calculated by multiplying the likelihood of occurrence on the x axis with the severity of the outcome on the y axis.

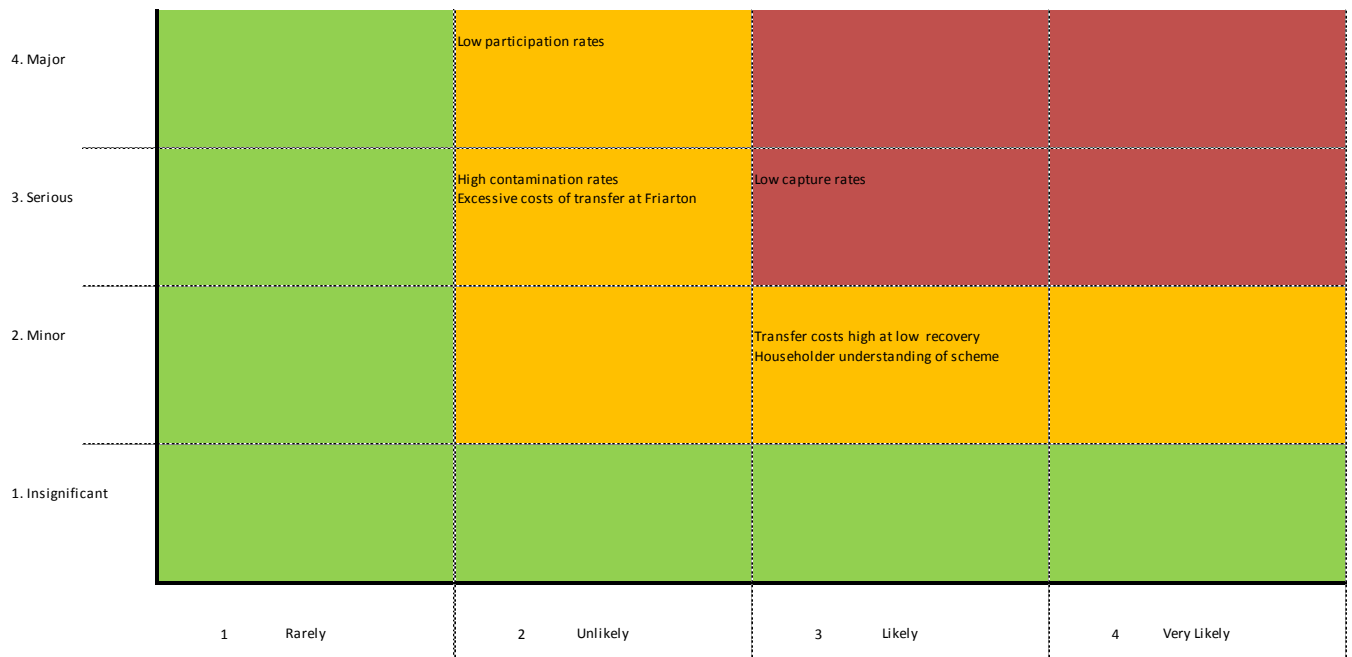
From the risks identified the maximum risk score any of the contract types can have is 16 and overall risk scores can be grouped into low, medium and high risk where:

Low risk: 0-5

Medium risk: 5 - 10

High risk: 10 – 16

Figure 4 - Perth and Kinross Logistical Risks



An examination of the logistical risk of the Perth and Kinross collection scheme results in the following:

Table 4 - Perth and Kinross logistical risk abatement

Risk	Risk Score	Perceived Risk	Abatement Measures
Low capture rates	9 – Medium/High	Low capture rates will increase the overall cost per tonne of scheme	Capture rates to be monitored in first weeks to determine impact
Low participation rates	8 - Medium	Low participation rates may mean samples are not representative and will increase overall cost per tonne of schemes	Participation numbers arise as a result of opt in process, this should be monitored against lifts
High contamination rates	6 – Medium/Low	High contamination rates may lead to an overestimate of capture and impact on recovery at Knowaste	Visual inspection in first weeks of scheme and feedback from Knowaste
Excessive costs of transfer at Friarton	6 – Medium/Low	If transfer process requires new WML modification or take longer than perceived this will lead to higher costs	Procedure for transfer should be identified
Transfer costs to Knowaste are high	6 – Medium/Low	Transfer costs are high, and leads to a high cost per tonne assessment	Costs are being covered by ZWS
Householder understanding scheme	6 – Medium/Low	If householders do not receive enough information on the scheme then this will impact on capture/participation	Communication schemes should be focus of management of trials

Risk Assessment

For each stage of the collection system employed, including collection, transfer and bulking, a hazard and risk assessment has been undertaken. The risk assessment has been based on a review of the existing risk assessments in place at each of the Councils for collection, transfer and bulking. Perth and Kinross:

- Risk assessment – Refuse Collection Section Generic – Driver/Loader
- Risk assessment – Refuse Collection – Driver /Loader
- Refuse Collection – Driver / Loader: Safe Systems at Work

The risk and hazard review for Perth and Kinross was based on the following assumptions:

- Collection in tiger bags
- Collection by RCV or box van
- Limited compaction i.e. no damage to bag or leakage

Many of the possible hazards in relation to collection of AHPs at kerbside are already identified in the Perth and Kinross risk assessment documents provided e.g. in relation to vehicle movements at collection, container loading and unloading and slips, trips and falls. Additional hazards are identified in the table below.

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Offensive / hygiene waste collected and compacted as residual waste – possible bio-aerosol/infection risk	Collection crew Collection driver	3	<ul style="list-style-type: none"> Regular monitoring. Collection in yellow and black striped bag (tiger bag). 	4	12	<ul style="list-style-type: none"> Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> roles and responsibilities; infection risk; bag identification; double bagging if risk of splitting; and minimising bag handling. Refuse crew and driver briefed on new collection including: Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Tiger bags overfilled by householder causing leakage or spillage – possible bio-aerosol/infection risk	Collection crew Member of the public	3	<ul style="list-style-type: none"> Drivers/Crew trained in carrying out dynamic “on-the-job” risk assessments. Training in use and storage of PPE. Designated and supplementary PPE. 	4	12	<ul style="list-style-type: none"> Arrangements in place for collection crew to report problems. Procedure for collection crew to leave bags if overfilled. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	3	9
Tiger bags split on lifting from kerbside - possible bio-aerosol/infection risk	Collection crew Member of the public	3	<ul style="list-style-type: none"> Drivers/Crew trained in carrying out dynamic “on-the-job” risk assessments. Training in use and storage of PPE. Designated and supplementary PPE. Regular monitoring. 	4	12	<ul style="list-style-type: none"> Procedure in place for double bagging Arrangements in place for collection crew to report problems. Procedure for collection crew to leave bags if overfilled. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	3	9
Tiger bags split in RCV on compaction possible bio-aerosol/infection risk	Collection crew Transfer site staff	3	<ul style="list-style-type: none"> Driver/crew training on compaction Containment in RCV. Training in use and storage of 	3	9	<ul style="list-style-type: none"> Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> roles and responsibilities; infection risk; 	3	9

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
			<ul style="list-style-type: none"> PPE. Regular monitoring. 			<ul style="list-style-type: none"> bag identification; double bagging if risk of splitting; and minimising bag handling. Procedure in place to report illnesses. Staff vaccinations kept up to date. 		
Manual handling injury as a result of frequent moving and loading of tiger bags.	Collection crew	3	<ul style="list-style-type: none"> Detailed instruction on manual handling techniques – including choosing routes Driver/crew trained in correct handling techniques, specifically in moving sacks. Crews trained in manual handling techniques where sacks must be held close to the body. Regular reviews of system and periodic refresher training. Wearing of Ballistic Trousers. Drivers trained in correct use of rave rail. Regular monitoring. 	3	9	<ul style="list-style-type: none"> Arrangements in place for collection crew to report problems Procedure for collection crew to leave bags if overfilled. 	3	9
Infection through minor cuts and abrasions while handling AHP waste.	Collection crew	3	<ul style="list-style-type: none"> Access to medical kit with plasters. Hand washing/personal hygiene regime 	3	9	<ul style="list-style-type: none"> Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> roles and responsibilities; infection risk; bag identification; double bagging if risk of splitting; and minimising bag handling. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Infection through eating, drinking and smoking after handling AHP waste	Collection crew	3	<ul style="list-style-type: none"> Hand washing/personal hygiene regime 	3	9	<ul style="list-style-type: none"> Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> roles and responsibilities; infection risk; bag identification; 	2	6

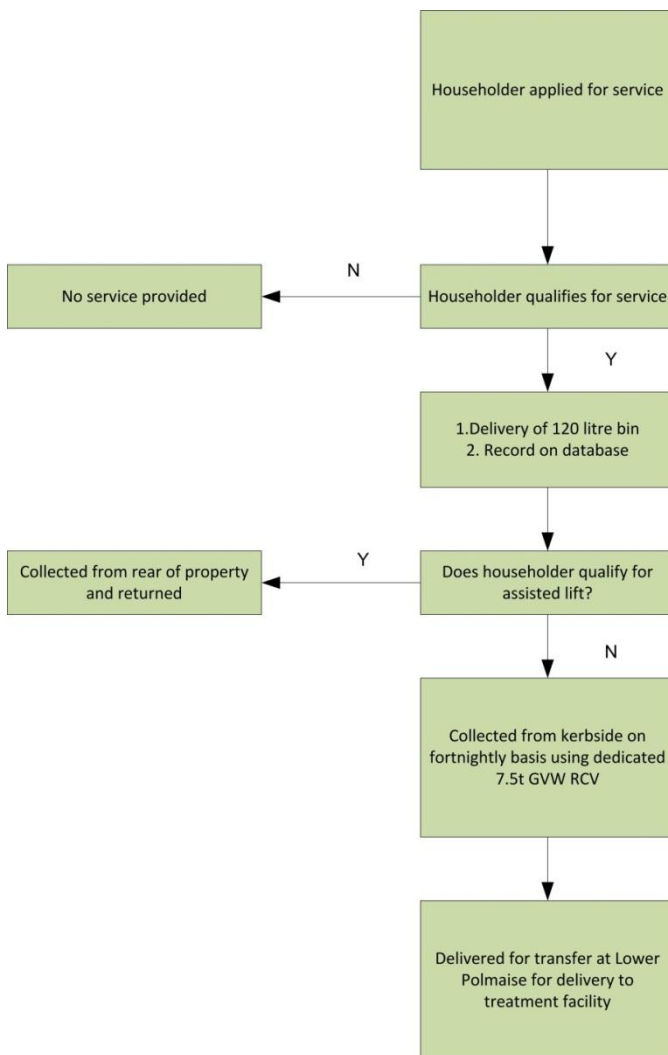
Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / <i>Planned Control Measures</i>	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
						<ul style="list-style-type: none"> ○ double bagging if risk of splitting; and ○ minimising bag handling. ● Procedure in place to report illnesses. ● Staff vaccinations kept up to date. 		

3 Stirling Council

Description of Scheme

Stirling Council will undertake a collection scheme to an estimated 500 households, with 200 households already operating on a mediwaste collection scheme. The collection scheme offered by will be provided as an opt-in scheme, with householders required to contact the Council via the contact centre to request a collection. The qualification criteria are likely at this stage to be based on whether or not they are householders in the trial area, the presence of children who require nappies, or the presence of elderly/infirm householders using sanitary products.

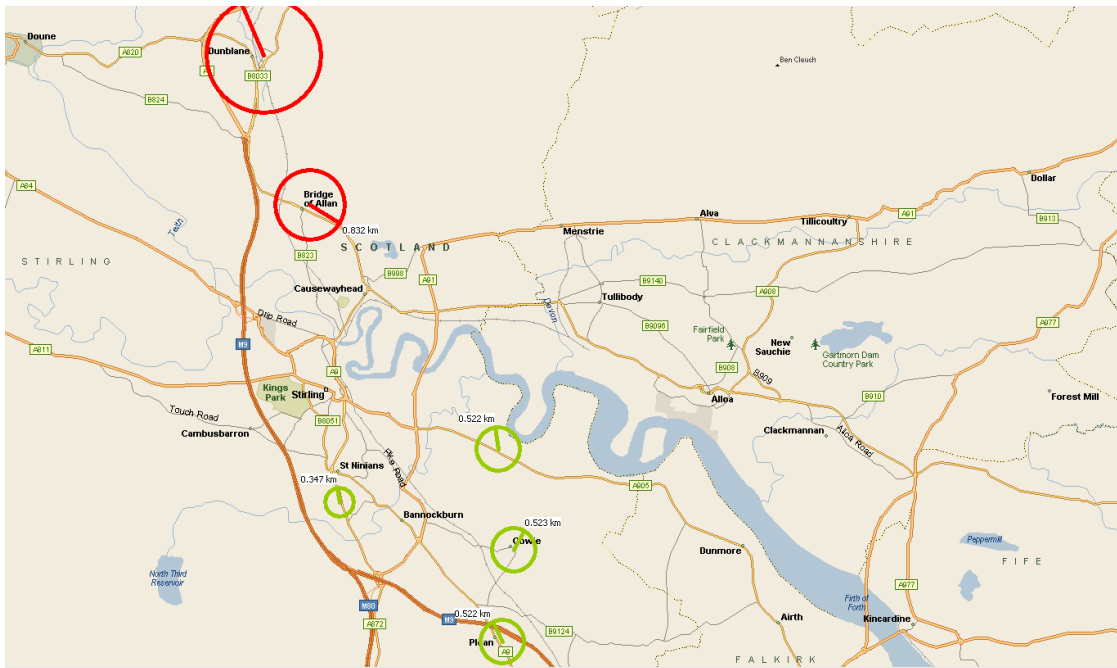
Figure 5 - Stirling scheme



The householder will be registered as participating on the scheme and added to the collection route for that particular trial area, and bags/bins will be delivered on the next collection round. AHP collections will be from the kerbside on a weekly/fortnightly basis depending on the trial area, via a 7.5t RCV, and AHP waste will be transferred to the Lower Polmaise transfer station.

It is anticipated that the AHP service will be offered to specific collections routes for logistical reasons, and, at this stage, will not be offered to those in the outlying Trossachs region. The specific collection routes to be offered the scheme are the "Monday Route" shown in red of Dunblane and Bridge of Allan, and the "Friday Route" shown in green of Whins of Milton, Fallin, Plean and Cowie.

Figure 6 - Stirling Trial Scheme Area



The Householder Experience

3.1.1 Qualification for Service

It is anticipated that a criteria is required to assert which requests for participation should lead to participation within the trial. For the purposes of this trial it is considered prudent to ensure that any participants are able to participate fully, without complication, and that this should lead to capture of materials. At this stage it is not considered prudent to include any elderly, infirm or disabled householders presently receiving assisted home care via NHS services, as this AHP waste is the responsibility of the NHS service provision.

It is suggested that any qualification criteria should ensure:

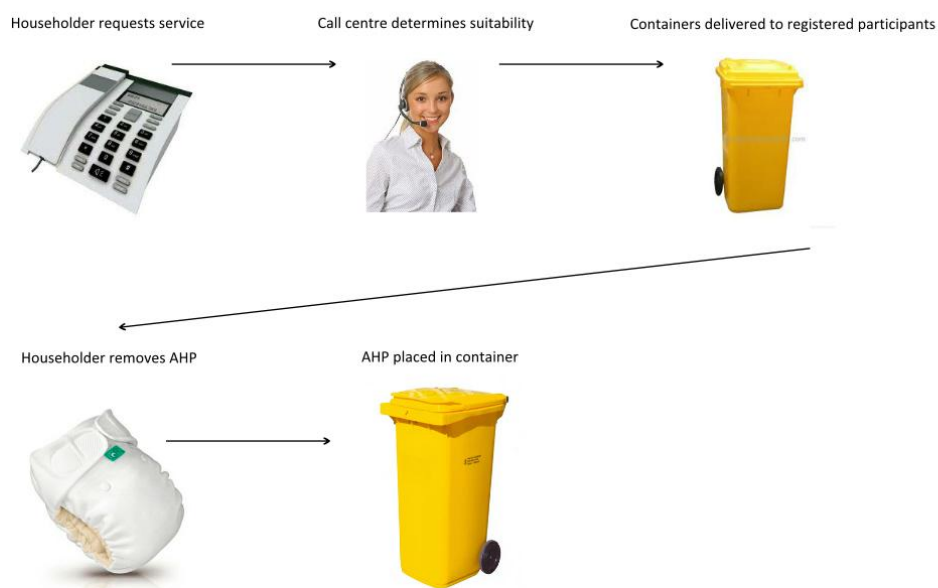
- That any participant has at least one child of "nappy" age, with the nappy requirement to be maintained for 24 weeks
- That any adult incontinence participant is not presently on assisted home care
- That all participants are in kerbside properties, and not in tenement, four in a block or other high rise accommodation
- That any adult participant is cross referenced against existing assisted pull out lists to determine existing services
- That any family participant is cross referenced against existing lists to determine if additional residual containers have been requested to enhance suitability

- Applicant is resident in the central Stirling region

3.1.2 Instructions to Householders

The householder experience is considered crucial to the success of the trials, and clear communication will be vital to ensuring adequate uptake of the service and participation and capture. It is envisaged that the core elements of the trial in the Stirling area will follow a clear set of instructions to householders, as illustrated below.

Figure 7 - Illustration of Stirling Collection Scheme



Asset Requirements

The specific assets that require procurement prior to the commencement of the trials are outlined below:

Table 5 - Stirling asset requirements

Capital Items	Costs
Vehicle Costs	£10,800
Tiger Bag total Cost	£0
Container Costs	£10,000
Total	£20,800

The total capital requirement for the assets is estimated at £20,800 for the duration of the trial period, assumed to be 24 weeks.

Scheme Costs

The scheme cost of the options outlined for Stirling is estimated at a cost of £26,727. This is broadly equivalent to £53.45 per household. The costs identified are pro-rata costs for a 24 week period, and are inclusive of vehicles, staff, containers, and tiger bags.

Table 6 - Stirling scheme costs

Item	Costs
Vehicle Costs	£10,800
Driver Costs	£5,927
Crew Costs	£0
Container Costs	£10,000
Tiger Bag total Cost	£0
Total	£26,727

Logistical Risks

Whilst there are physical risks apparent in the collection of AHP's, there are also some significant risks in the logistics of the overall scheme, which can impact on value for money and trial effectiveness.

It is anticipated that potential logistical risks include:

- Low capture rates
- Low participation rates
- High contamination rates
- Transfer and delivery costs to Knowaste at low levels of recovery

A risk matrix has been used to identify the need to incorporate risk abatement measures. Risk scores are calculated by multiplying the likelihood of occurrence on the x axis with the severity of the outcome on the y axis.

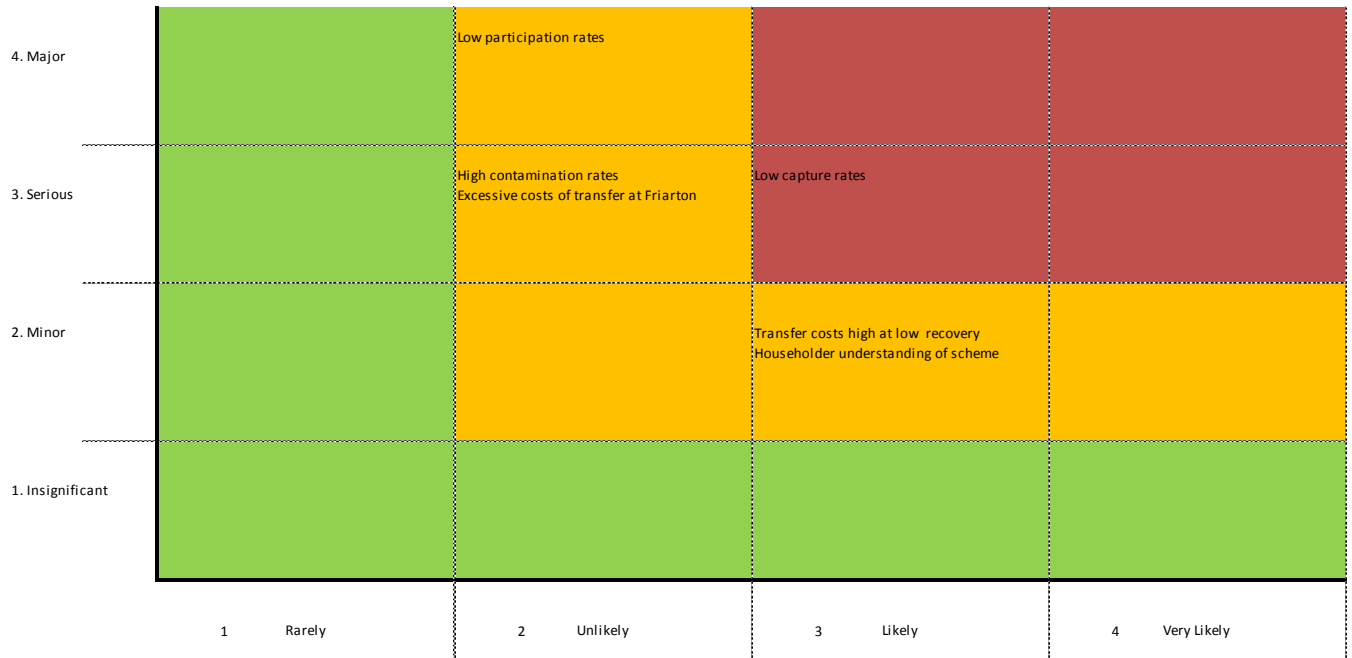
From the risks identified the maximum risk score any of the contract types can have is 16 and overall risk scores can be grouped into low, medium and high risk where:

Low risk: 0-5

Medium risk: 5 - 10

High risk: 10 – 16

Figure 8 - Stirling logistical risks



An examination of the logistical risk of the Stirling collection scheme results in the following:

Table 7 - Stirling logistical risk abatement

Risk	Risk Score	Perceived Risk	Abatement Measures
Low capture rates	9 – Medium/High	Low capture rates will increase the overall cost per tonne of scheme	Capture rates to be monitored in first weeks to determine impact
Low participation rates	8 - Medium	Low participation rates may mean samples are not representative and will increase overall cost per tonne of schemes	Participation numbers arise as a result of opt in process, this should be monitored against lifts
High contamination rates	6 – Medium/Low	High contamination rates may lead to an overestimate of capture and impact on recovery at Knowaste	Visual inspection in first weeks of scheme and feedback from Knowaste
Excessive costs of transfer at Friarton	6 – Medium/Low	If transfer process requires new WML modification or take longer than perceived this will lead to higher costs	Procedure for transfer should be identified
Transfer costs to Knowaste are high	6 – Medium/Low	Transfer costs are high, and leads to a high cost per tonne assessment	Costs are being covered by ZWS
Householder understanding scheme	6 – Medium/Low	If householders do not receive enough information on the scheme then this will impact on capture/participation	Communication schemes should be focus of management of trials

Risk Assessment

The risk and hazard review for Stirling was based on the following assumptions:

- Collection in 120 litre bin
- Collected by RCV
- Limited compaction i.e. no damage to bag or leakage

Many of the possible hazards in relation to collection of AHPs at kerbside are already identified in the Stirling risk assessment documents provided e.g. in relation to vehicle movements at collection, container loading and unloading and slips, trips and falls. The documents provided were:

Risk assessment:

- RC 01 RA – Refuse Collection Process.
- RC 02 RA - Mounting and DeMounting Refuse Container from Hufferman RCV.
- RC03 RA – Duties relation to the cleaning of RCV's including cabs, bodies and chassis.

Safe working methods:

- RC 01 SWM – Refuse Collection Operations (Drivers & Loaders) of All RCV's (1, 2 or 3 man crews).
- RC 02 SWM – Mounting and De-Mounting a container from Hufferman RCV.
- RC 03 SWM – Refuse Collection Vehicle Cleaning.

Additional hazards are identified in below.

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Offensive / hygiene waste collected and compacted as residual waste – possible bio-aerosol/infection risk	Collection crew Collection driver	3	<ul style="list-style-type: none"> • Wear personal protective equipment (PPE) supplied: Protective boots, Protective gloves, Safety glasses or goggles and mask if required. <ul style="list-style-type: none"> • Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. • <i>Clear labelling of AHP collection bins.</i> 	3	9	<ul style="list-style-type: none"> • Refuse crew and driver briefed on new collection. <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. • Staff vaccinations kept up to date. 	3	9
Wheeled bin overfilled by householder causing leakage or spillage during loading – possible bio-aerosol/infection risk	Collection crew Member of the public	3	<ul style="list-style-type: none"> • Wear personal protective equipment (PPE) supplied: Protective boots, Protective gloves, Safety glasses or goggles and mask if required. <ul style="list-style-type: none"> • Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished. • Where any spillage of waste materials occurs operatives should ensure that spill kits (Brush, Shovel) are employed and the materials 	3	9	<ul style="list-style-type: none"> • Arrangements in place for collection crew to report problems. <ul style="list-style-type: none"> • Staff vaccinations kept up to date • Requirement to regularly clean PPE. 	3	9

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
			<ul style="list-style-type: none"> are cleared safely. Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. RC 01 SWM – Refuse Collection Processes. 					
Householders place AHPs in collection bin unbagged – possible bio-aerosol/infection risk	Collection crew Collection driver	3	<ul style="list-style-type: none"> Wear personal protective equipment (PPE) supplied: Protective boots, Protective gloves, Safety glasses or goggles and mask if required. <ul style="list-style-type: none"> Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished Where any spillage of waste materials occurs (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. RC 01 SWM – Refuse Collection Processes. 	4	12	<ul style="list-style-type: none"> Arrangements in place for collection crew to report problems. 	3	9
Bags split in RCV on compaction possible bio-aerosol/infection risk	Collection crew Transfer station staff	3	<ul style="list-style-type: none"> Wear personal protective equipment (PPE) supplied; Protective boots, Protective gloves, Safety glasses or goggles and mask if required. <ul style="list-style-type: none"> Ensure that the following 	3	9	<ul style="list-style-type: none"> Driver/crew training on compaction. Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> roles and responsibilities; infection risk; bag identification; 	3	9

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
			<p>items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished.</p> <ul style="list-style-type: none"> • Where any spillage of waste materials occurs (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. <ul style="list-style-type: none"> • Containment in RCV. 			<ul style="list-style-type: none"> ○ double bagging if risk of splitting; and ○ minimising bag handling. • Staff vaccinations kept up to date. • Requirement to regularly clean PPE. 		
Manual handling injury as a result of frequent handling and pushing of overfilled wheelie bins	Collection crew	3	<ul style="list-style-type: none"> • Operatives must be trained in Manual Handling to comply with The Manual Handling Operations Regulations 1992 with attention to Appendix 1. Sections 12 & 13 guidelines for pushing and pulling. • Make judgement whether any wheeled bin is unsafe to move. If not emptied (e.g. too heavy, contaminated, burst, damaged or sharps protruding), report the reason either using Bartec (if vehicle equipped with the system) or make a note on the Daily Log Sheet (Doc 00014) <ul style="list-style-type: none"> • Operatives must undertake manual handling refresher training every 3 years. 	2	6			

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
			<ul style="list-style-type: none"> • Where any spillage of waste materials occurs (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. 					
Infection through minor cuts and abrasions while handling AHP waste.	Collection crew		<ul style="list-style-type: none"> • Wear personal protective equipment (PPE) supplied; Protective boots, Protective gloves, Safety glasses or goggles and mask if required. • Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished. <ul style="list-style-type: none"> • Where any spillage of waste materials occurs (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. 	3	9	<ul style="list-style-type: none"> • Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. • Staff vaccinations kept up to date. 	2	6

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Infection through eating, drinking and smoking after handling AHP waste	Collection crew		<ul style="list-style-type: none"> • Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished <ul style="list-style-type: none"> • Where any spillage of waste materials occur (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. 	3	9	<ul style="list-style-type: none"> • Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. • Staff vaccinations kept up to date. • Requirement to regularly clean PPE. 	2	6

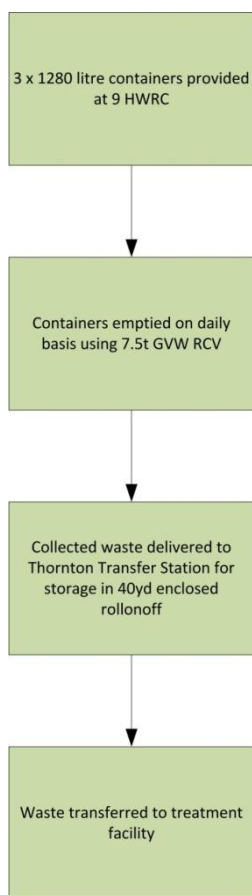
4 Fife Council

Description of Scheme

Fife Council will provide infrastructure for the collection of AHP wastes at St Andrews household waste recycling centre, with three 1280 litre containers to be provided. Containers are likely to be emptied on a daily or at least frequent basis, for the duration of the trial and will be emptied with the use of a 7.5t RCV.

Collected materials will be transferred to the Thornton transfer station for storage in an enclosed 40yd container.

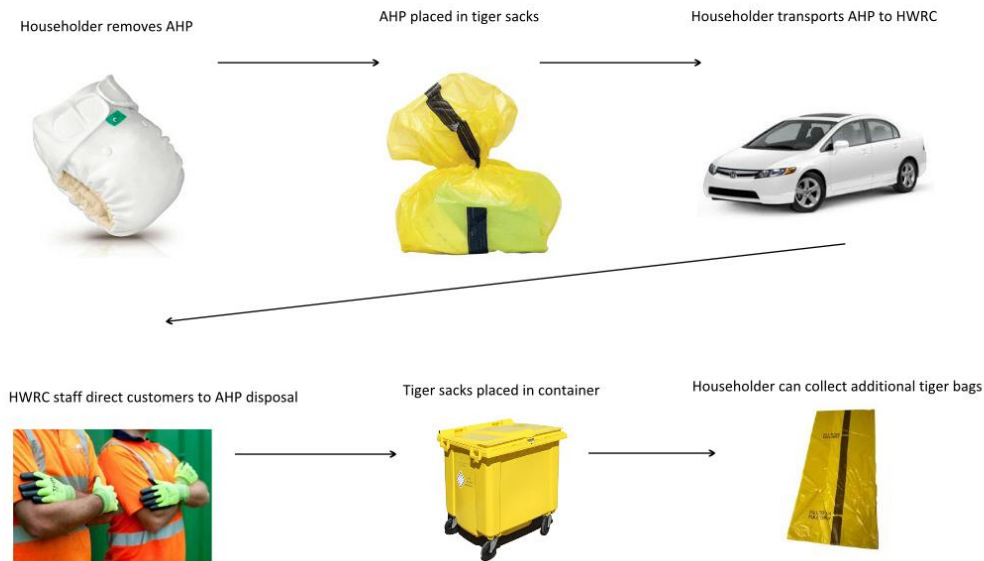
Figure 9 - Fife scheme



The Householder Experience

The householder experience is considered crucial to the success of the trials, and clear communication will be vital to ensuring adequate uptake of the service and participation and capture. It is envisaged that the core elements of the trial in the Fife area will follow a clear set of instructions to householders, as illustrated below.

Figure 10 - Illustration of Fife Collection Scheme



Asset Requirements

The asset requirements for the undertaking of this trial period will be:

Table 8 - Fife asset requirements

Items	Costs
Container Costs	£1,200
Tiger Bag total Cost	£9,000 ²
Total	£10,200

² Based on 500 households participating at 5 bags per week

Scheme Costs

The scheme cost of the option outlined for Fife is are pro-rata costs for a 24 week period, and are inclusive of the containers on the HWRC and the required personnel for collection on a weekly basis. The total costs identified are circa £20,114

Table 9 - Fife scheme costs

Items	Costs
Vehicle Costs	£5,880
Driver Costs	£2,123 ³
Crew Costs	£1,911
Container Costs	£1,200
Tiger Bag total Cost	£9,000
Total	£20,114

Logistical Risks

Whilst there are physical risks apparent in the collection of AHP's, there are also some significant risks in the logistics of the overall scheme, which can impact on value for money and trial effectiveness.

It is anticipated that potential logistical risks include:

- Low capture rates
- Low participation rates
- Not all perceived participants have access to private travel
- High contamination rates
- Transfer and delivery costs to Knowaste at low levels of recovery

A risk matrix has been used to identify the need to incorporate risk abatement measures. Risk scores are calculated by multiplying the likelihood of occurrence on the x axis with the severity of the outcome on the y axis. From the risks identified the maximum risk score any of the contract types can have is 16 and overall risk scores can be grouped into low, medium and high risk where:

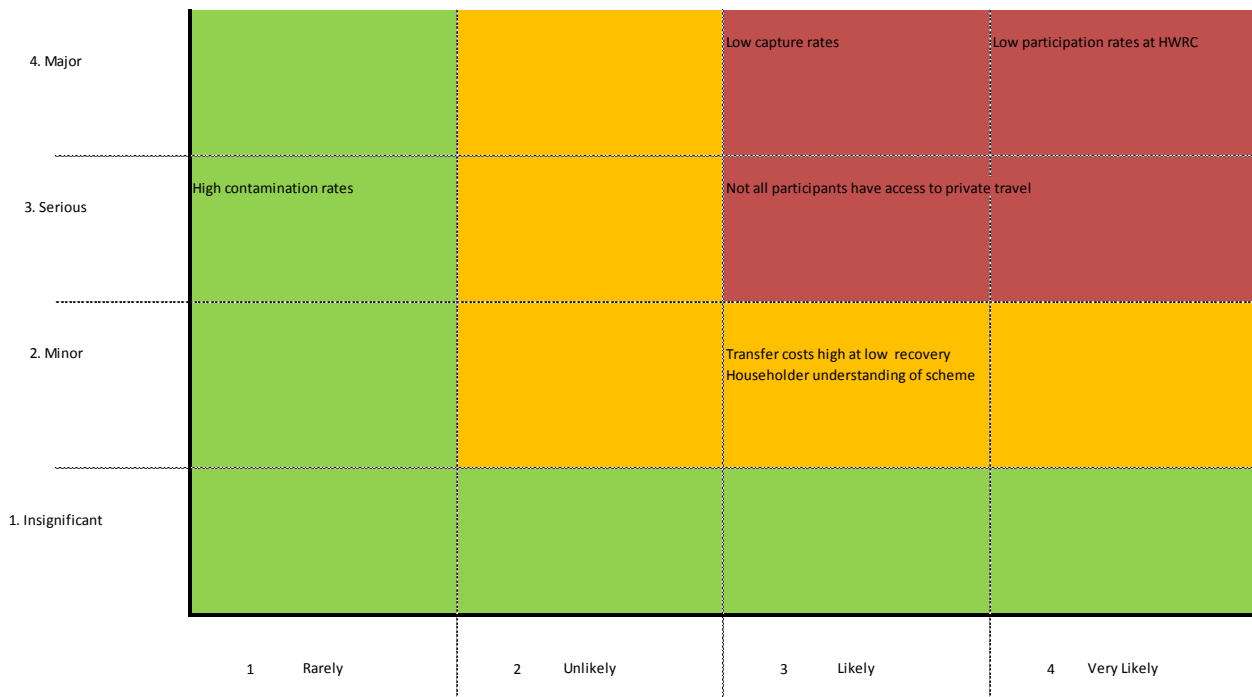
Low risk: 0-5

Medium risk: 5 - 10

High risk: 10 – 16

³ Based on collection once per week

Figure 11 - Fife logistical risks



An examination of the logistical risk of the Fife collection scheme results in the following:

Table 10 - Fife logistical risk abatement

Risk	Risk Score	Perceived Risk	Abatement Measures
Low capture rates	12 – High	Low capture rates will increase the overall cost per tonne of scheme	Capture rates to be monitored in first weeks to determine impact
Low participation rates	16 - High	Low participation rates may mean samples are not representative and will increase overall cost per tonne of schemes	Participation rates to be monitored in first weeks to determine impact
High contamination rates	3 - Low	High contamination rates may lead to an overestimate of capture and impact on recovery at Knowaste	Visual inspection in first weeks of scheme and feedback from Knowaste, unlikely to be a major issue at HWRC
Access to private travel	9 – Medium/High	It is anticipated that participants for HWRC will require access to private travel, due to odour issues/privacy	None
Transfer costs to Knowaste are high	6 – Medium/Low	Transfer costs are high, and leads to a high cost per tonne assessment	Costs are being covered by ZWS
Householder understanding scheme	6 – Medium/Low	If householders do not receive enough information on the scheme then this will impact on capture/participation	Communication schemes should be focus of management of trials

Risk Assessment

The risk and hazard review for Fife was based on the following assumptions:

- Householders will use tiger bags supplied by Council on request.
- Collection in 1280 litre bins
- Collected by RCV
- Limited compaction i.e. no damage to bag or leakage

Many of the possible hazards in relation to collection of AHPs at HWRC are already identified in the Fife risk assessment documents provided e.g. in relation to vehicle movements on site and container loading and unloading. Additional hazards are identified in the table below.

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Storage capacity at HWRC is exceeded so offensive/hygiene waste not effectively contained – possible bio-aerosol/infection risk	Recycling Centre Assistant Collection Contractor Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. <i>Daily collections</i> 	3	9	<ul style="list-style-type: none"> HWRC staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Procedure in place for HWRC staff to request additional collection if bins become full to capacity. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Offensive / hygiene waste placed in wrong collection container by HHs – possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Site employees receive training and information on good personal hygiene standards. Site employees receive manual handling training. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. <i>Collection in yellow and black striped bag (tiger bag)</i> <i>Clear signage for containers on site.</i> 	4	12	<ul style="list-style-type: none"> HWRC staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. HWRC staff monitor members of the public and direct to correct container. Procedure in place for HWRC staff to remove any bags placed in wrong containers. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	3	9
Tiger bags overfilled by member of public causing leakage or spillage on-site – possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. 	2	6	<ul style="list-style-type: none"> Additional collection sacks provided for staff use on site. Clean-up procedures. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Tiger bags split as member of public places bags in container - possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. 	2	6	<ul style="list-style-type: none"> Additional collection sacks provided for staff use on site. Clean-up procedures. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
			<ul style="list-style-type: none"> Appropriate PPE is provided and worn. Showers facilities are available. Containers provide effective containment. 					
Leakage or spillage on outside of collection container bringing users into contact with material.	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. 	4	12	<ul style="list-style-type: none"> Monitoring cleanliness of containers. Regular cleaning of containers. 	2	6
Infection through minor cuts and abrasions while handling AHP waste.	Recycling Centre Assistant	3	<ul style="list-style-type: none"> First Aid Kits are located at all Recycling Centres. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Showers facilities are available. 	3	9	<ul style="list-style-type: none"> Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Infection through eating, drinking and smoking after handling AHP waste	Recycling Centre Assistant	3	<ul style="list-style-type: none"> Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Showers facilities are available. 	3	9	<ul style="list-style-type: none"> Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6

Hazards in relation to the transfer of AHPs from the HWRCs to the Thornton Transfer Station are identified in the table below.

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Waste unloaded in wrong area without effective containment - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Site employees receive manual handling training. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. 	4	12	<ul style="list-style-type: none"> Driver/collection crew staff briefed on new collection. Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Clear signage of segregation area. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Bags rupture on transfer in vehicle - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Site employees receive manual handling training. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. 	4	12	<ul style="list-style-type: none"> Driver/collection crew staff briefed on new collection. Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Clear signage of segregation area. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date 	3	9
Bags fall out of vehicle on transfer to containment container - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Site employees receive manual handling training. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. 	4	12	<ul style="list-style-type: none"> Driver/collection crew staff briefed on new collection. Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Clear signage of segregation area. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date 	3	9
Clinical waste identified in waste stream	Transfer station staff	4	<ul style="list-style-type: none"> Housekeeping equipment is 	3	12	<ul style="list-style-type: none"> Procedure for separation, containment and disposal of any 	3	12

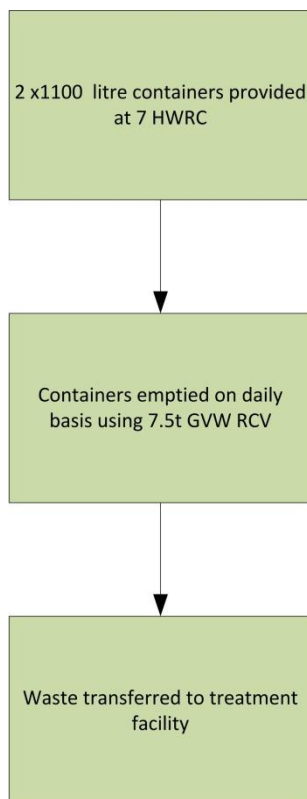
Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
			<p>available.</p> <ul style="list-style-type: none"> • Appropriate PPE is provided and worn. • RCAs are trained to identify common hazardous substances. • Attendants are issued with plastic aprons, gauntlets and visor. 			unexpected clinical waste arising.		
Odour from storage containers	Transfer station staff	1	<ul style="list-style-type: none"> • <i>Closed containment.</i> • <i>Storage of less than one week.</i> 	3	3	<ul style="list-style-type: none"> • Procedure for reporting complaints. 	3	3
Infection through minor cuts and abrasions while handling AHP waste.	Transfer station staff	3	<ul style="list-style-type: none"> • First Aid Kits are located at all Recycling Centres. • Site employees receive training and information on good personal hygiene standards. • Washing facilities provided. • Shower facilities are available. 	3	9	<ul style="list-style-type: none"> • Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; and ○ segregation. • Procedure in place to report illnesses. • Staff vaccinations kept up to date. 	2	6
Infection through eating, drinking and smoking after handling AHP waste	Transfer station staff	3	<ul style="list-style-type: none"> • First Aid Kits are located at all Recycling Centres. • Site employees receive training and information on good personal hygiene standards. • Washing facilities provided. • Shower facilities are available. 	3	9	<ul style="list-style-type: none"> • Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; and ○ segregation. • Procedure in place to report illnesses. • Staff vaccinations kept up to date. 	2	6

5 North Lanarkshire Council

Description of Scheme

North Lanarkshire Council will provide infrastructure for the collection of AHP wastes at the Coatbridge/Stobcross household waste recycling centre, with two 1100 litre containers to be provided. Containers are likely to be emptied on a frequent basis, for the duration of the trial and will be emptied with the use of a 7.5t RCV to be undertaken by Stirling Council.

Figure 12 - North Lanarkshire scheme

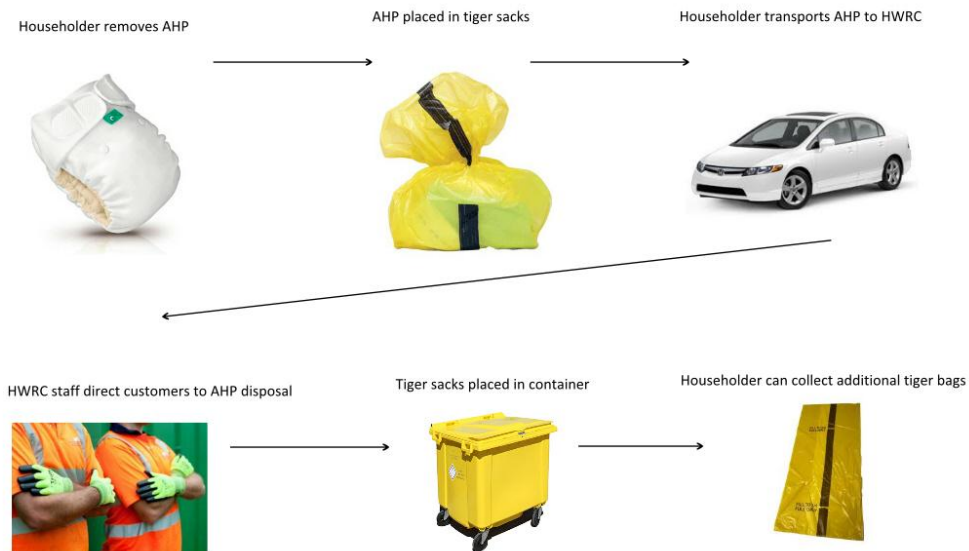


North Lanarkshire Council do not presently have a waste transfer or bulking facility that would be capable of bulking materials prior to transfer. As such materials will be collected on a weekly basis by Stirling Council on a Tuesday, Wednesday or Thursday.

The Householder Experience

The householder experience is considered crucial to the success of the trials, and clear communication will be vital to ensuring adequate uptake of the service and participation and capture. It is envisaged that the core elements of the trial in the Fife area will follow a clear set of instructions to householders, as illustrated below.

Figure 13 - Illustration of NLC Collection Scheme



Asset Requirements

The asset requirements for the undertaking of this trial period will be:

Table 11 - North Lanarkshire asset requirements

Items	Costs
Container Costs	£1,000
Tiger Bag total Cost	£9,000 ⁴
Total	£10,000

Scheme Costs

The scheme cost of the option outlined for North Lanarkshire Council is are pro-rata costs for a 24 week period, and are inclusive of the containers on the HWRC and the required personnel for collection on a weekly basis. The total costs identified are circa £10,000.

⁴ Based on 500 households participating at 5 bags per week

Table 12 - North Lanarkshire scheme costs

Items	Costs
Container Costs	£1,000
Tiger Bag total Cost	£9,000
Total	£10,000

Logistical Risks

Whilst there are physical risks apparent in the collection of AHP's, there are also some significant risks in the logistics of the overall scheme, which can impact on value for money and trial effectiveness.

It is anticipated that potential logistical risks include:

- Low capture rates
- Low participation rates
- Not all perceived participants have access to private travel
- High contamination rates
- Transfer and delivery costs to Knowaste at low levels of recovery

A risk matrix has been used to identify the need to incorporate risk abatement measures. Risk scores are calculated by multiplying the likelihood of occurrence on the x axis with the severity of the outcome on the y axis.

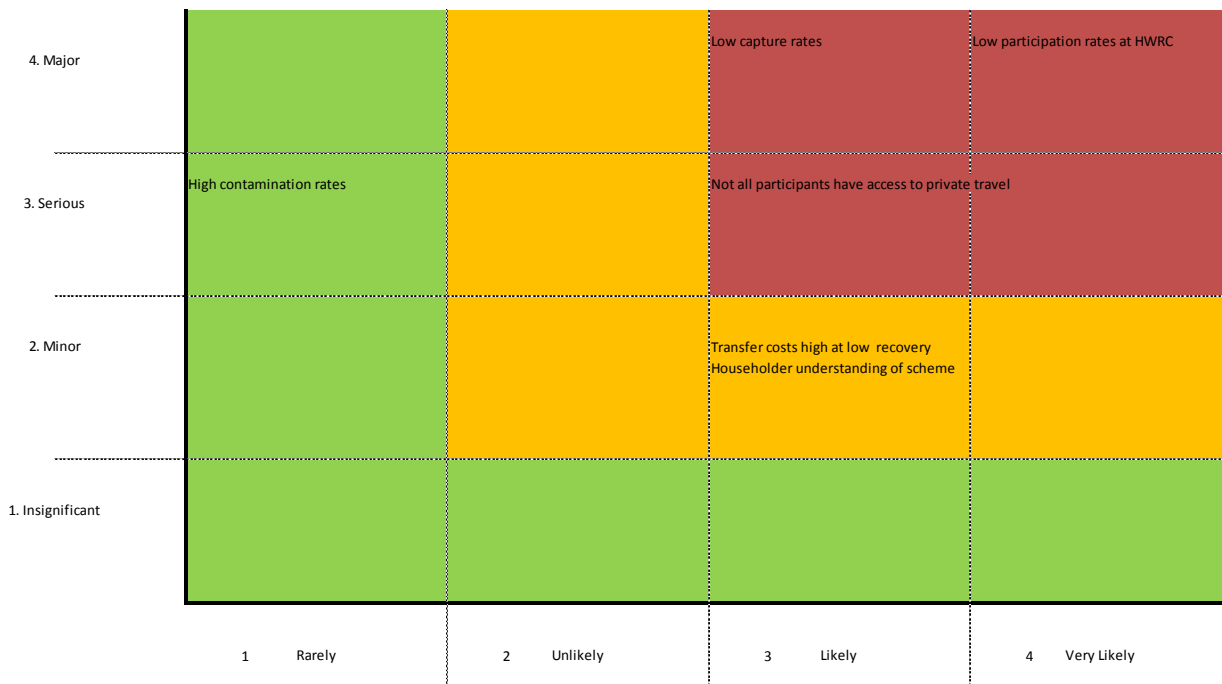
From the risks identified the maximum risk score any of the contract types can have is 16 and overall risk scores can be grouped into low, medium and high risk where:

Low risk: 0-5

Medium risk: 5 - 10

High risk: 10 – 16

Figure 14 - North Lanarkshire logistical risks



An examination of the logistical risk of the North Lanarkshire collection scheme results in the following:

Table 13 - North Lanarkshire logistical risk abatement

Risk	Risk Score	Perceived Risk	Abatement Measures
Low capture rates	12 – High	Low capture rates will increase the overall cost per tonne of scheme	Capture rates to be monitored in first weeks to determine impact
Low participation rates	16 - High	Low participation rates may mean samples are not representative and will increase overall cost per tonne of schemes	Participation rates to be monitored in first weeks to determine impact
High contamination rates	3 - Low	High contamination rates may lead to an overestimate of capture and impact on recovery at Knowaste	Visual inspection in first weeks of scheme and feedback from Knowaste, unlikely to be a major issue at HWRC
Access to private travel	9 – Medium/High	It is anticipated that participants for HWRC will require access to private travel, due to odour issues/privacy	None
Householder understanding scheme	6 – Medium/Low	If householders do not receive enough information on the scheme then this will impact on capture/participation	Communication schemes should be focus of management of trials

6 Cumulative Costs Profile

Capital Costs

The total assets required for the duration of the AHP collection trial and the capital requirement is detailed in table 15 below:

Table 14 - Cumulative capital costs

Capital Items	Perth and Kinross (Auchterarder)	Perth and Kinross (Crieff)	Perth and Kinross (Tulloch)	Stirling	Fife	North Lanarkshire Council
Vehicle Costs	£720	£1,200	£720	£10,800	£5,880	£0
Tiger Bag total Cost	£3,600	£3,600	£3,600	£0	£9,000	£9,000
Container Costs	£4,000	£4,000	£0	£10,000	£1,200	£1,000
Total	£8,320	£8,800	£4,320	£20,800	£16,080	£10,000

The total capital requirement is estimated at £68,320 for the 24 week period.

Total Scheme Costs

The total cumulative costs for the scheme including staffing costs and capital items are £96,592.

Table 15 - Cumulative total scheme costs

Pro Rata Costs	Perth and Kinross (Auchterarder)	Perth and Kinross (Crieff)	Perth and Kinross (Tulloch)	Stirling	Fife	North Lanarkshire Council
Vehicle Costs	£720	£1,200	£720	£10,800	£5,880	
Driver Costs	£2,866	£3,981	£2,866	£5,927	£2,123	£0
Crew Costs	£2,866	£2,866	£2,866	£0	£1,911	£0
Container Costs	£4,000	£4,000	£0	£10,000	£1,200	£1,000
Tiger Bag total Cost	£3,600	£3,600	£3,600	£0	£9,000	£9,000
Total	£14,052	£15,647	£10,052	£26,727	£20,114	£10,000

Scheme Costs with Transfer to Knowaste

Total scheme costs excluding transfer of AHP materials to Knowaste at West Bromwich are £102,229. Existing quotes for collection of AHP materials on a weekly basis from each of the four authorities and transfer to Knowaste are £1,300 per lift.

Over the 24 week term of the trials, this equates to an additional cost of £31,200, bringing the overall trial costs to £128,152.

Scheme Costs with Landfill Disposal

Scheme costs with the disposal of AHP to landfill are interdependent on the capture rate of materials from collection activities.

Based on a capture rate ranging from 5% to 100% of the total available from the maximum number of households on the trial in each local authority area, a total cost of disposal per authority and cumulatively can be calculated to assess the cost comparison with transfer to Knowaste.

For the purposes of calculation, it is assumed that a similar number of householders participate in the HWRC scheme as the kerbside scheme (500 households participating).

Table 16- Disposal costs as per capture rates for 6 month trial

Capture Rate	Perth and Kinross	Stirling	Fife	NLC	Cumulative
5%	£382	£259	£321	£280	£1,243
10%	£765	£518	£643	£560	£2,486
15%	£1,147	£778	£964	£840	£3,729
20%	£1,529	£1,037	£1,286	£1,119	£4,971
25%	£1,912	£1,296	£1,607	£1,399	£6,214
30%	£2,294	£1,555	£1,929	£1,679	£7,457
35%	£2,676	£1,814	£2,250	£1,959	£8,700
40%	£3,059	£2,074	£2,572	£2,239	£9,943
45%	£3,441	£2,333	£2,893	£2,519	£11,186
50%	£3,823	£2,592	£3,215	£2,798	£12,428
55%	£4,206	£2,851	£3,536	£3,078	£13,671
60%	£4,588	£3,110	£3,858	£3,358	£14,914
65%	£4,970	£3,370	£4,179	£3,638	£16,157
70%	£5,352	£3,629	£4,501	£3,918	£17,400
75%	£5,735	£3,888	£4,822	£4,198	£18,643
80%	£6,117	£4,147	£5,144	£4,477	£19,885
85%	£6,499	£4,406	£5,465	£4,757	£21,128
90%	£6,882	£4,666	£5,787	£5,037	£22,371
95%	£7,264	£4,925	£6,108	£5,317	£23,614
100%	£7,646	£5,184	£6,430	£5,597	£24,857

As a result it is clear that the transfer costs to Knowaste are, even at 100% capture in the trial period, £6,343 more expensive.

7 Possible Performance and Cost per Tonne

In order to estimate a cost per tonne, the total quantity of nappy waste per household needs to be estimated.

Table 17 - Potential scheme capture

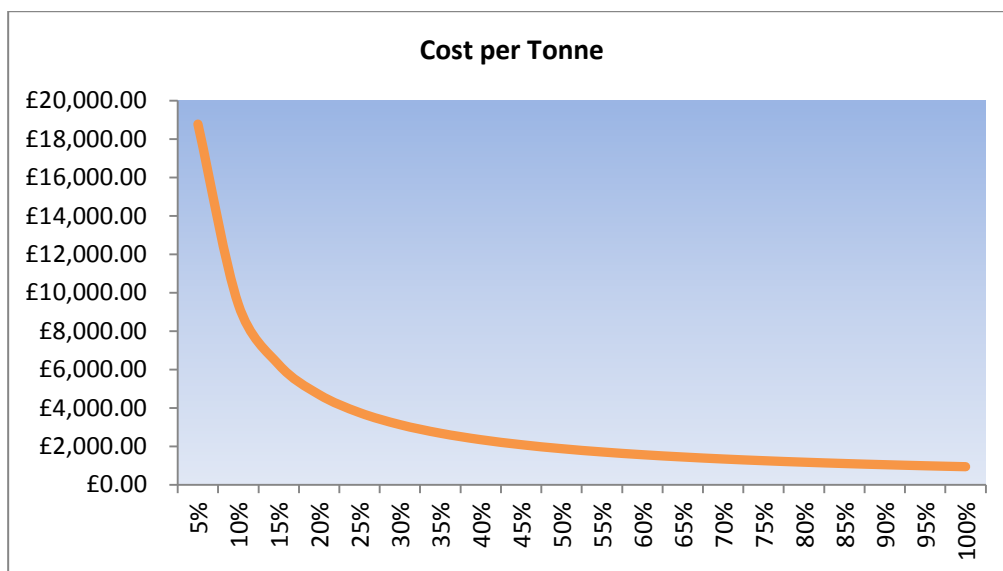
	Perth and Kinross	Stirling	Fife	NLC
Households with Children ⁵	7,178	4,840	19,187	19,299
Nappy Arisings ⁶	4.8%	4.8%	4.8%	4.8%
Total Residual Waste	46,093	24,945	117,603	110,624
Nappy kg	2,212	1,197	5,645	5,310
kg/hh/annum	308	247	294	275
kg/hh/wk	5.9	4.8	5.7	5.3

Based on estimates of the number of households with children between the ages of 0-4, and the estimates quantity of nappy waste present, we can estimate that the total kg/hh/week of nappy waste is likely to be in the region of 4.8 to 5.9 kg/hh/week. Over the period of the 24 week trial, this provides a total feedstock of 520kg for capture.

Cost per Tonne Case Study

Looking at Crieff as a case study, estimating a total of 5.9 kg/hh/week with 200 properties serviced at a total cost over 24 weeks of the trial of £26,727, the following graph of affordability and cost per tonne can be drawn:

Figure 15 - Case study trial cost per tonne



The range of cost per tonne ranges from £18k per tonne at a recovery of 5% over the 24 weeks to a cost per tonne of £939 at 100% recovery over the period.

⁵ From Scotland Census Data

⁶ Composition of Municipal Solid Waste in Scotland, March 2009

Long Term Cost per Tonne

It is acknowledged that the costs and cost per tonne of trials is not a reliable long term indicator of the affordability of the scheme. A more reliable method of analysis is to assess the costs based on depreciation of assets and the roll out of the scheme to the whole target population.

Taking the example of the Stirling scheme, where vehicles and containers are depreciated over a 7 year period, and collection takes place once per week to 4,840 households, the costs per tonne become much more affordable as capture rates increase:

Table 18 - Potential long term cost per tonne

Capture Rate	Tonnes	Cost per Tonne
5%	59.87	£ 909
10%	119.74	£ 454
15%	179.60	£ 303
20%	239.47	£ 227
25%	299.34	£ 182
30%	359.21	£ 151
35%	419.08	£ 130
40%	478.94	£ 114
45%	538.81	£ 101
50%	598.68	£ 91
55%	658.55	£ 83
60%	718.42	£ 76
65%	778.28	£ 70
70%	838.15	£ 65
75%	898.02	£ 61
80%	957.89	£ 57
85%	1,017.76	£ 53
90%	1,077.62	£ 50
95%	1,137.49	£ 48
100%	1,197.36	£ 45

8 UK Experience

Councils with AHP Collection

There are some separate collections of AHPs in the UK, for hygiene and residual bin capacity bin reasons.

8.1.1 Harlow

Harlow Council has a bookable collection for nappy waste.

Table 19 - Harlow Council scheme details

Contact	John Grundy – 01279 446857/ jon.grundy@harlow.gov.uk General number - 01279 446655
Booking /admin systems	Bookable collections for disposable nappies/incontinence waste. Nappies and incontinence wastes can still be put in residual waste. Service is currently over-subscribed and waiting list is in operation.
Eligibility	Houses and low rise properties.
Container/collection	Heavy duty gusseted grey Polythene sack
Vehicle type	3.5 tonne box vehicle. This vehicle is used for other purposes, but is not a mainstream waste collection vehicle
Additional staff requirements	The collections are done by one driver/loader, who works on the service 4 days per week, and does other duties on the other day
Collection frequency	Weekly
Operational risks and difficulties	None identified by the Council or the contractor
Number of households	300 + 24 properties currently on the waiting list

Source: direct contact with Council, <http://www.roundaboutharlow.co.uk/articles/1134/1/News-from-Harlow-Council--Collection-days-for-nappysincontinence-waste-to-change/Page1.html>, <http://www.harlow.gov.uk/default.aspx?page=10686>, http://www.harlow.gov.uk/about_the_council/council_services/environment/new_waste_and_recycling_collec/ot_her_waste_collection_service.aspx?theme=print

8.1.2 Monmouthshire

A service now exists in Monmouthshire whereby residents can register for a weekly collection of disposable nappies and incontinence waste. This service has been introduced recently and at present they do not have a large number of households participating. Monmouthshire is also investigating the possibility of recycling the waste stream.

Table 20 - Monmouthshire scheme details

Contact	Liz Shaw – lizshaw@monmouthshire.gov.uk
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	01633 644644 – general council number
Booking /admin systems	Complete registration form online. A leaflet and roll of stickers delivered within 7 days.
Eligibility	No restrictions – just have to have waste generated regularly so no unnecessary collection trips made.
Container/collection	General refuse sack (paid by householder) – orange label.
Vehicle type	Pick up van
Additional staff requirements	One driver
Collection frequency	Fortnightly (on general waste collection weeks nappies included in general waste). Initially this service was provided on a separate weekly collection from the doorstep. However, due to the expansion of the fortnightly refuse collections countywide, collection is now from the kerbside. On the week of the fortnightly refuse collection, nappies can be placed in with general waste, and on the alternative week only nappies are placed at kerbside in a general refuse sack.
Operational risks and difficulties	C1,000 have registered

Source: direct from Council 0102112,

http://www.monmouthshire.gov.uk/info/100006/environment_and_planning/1158/guide_to_using_find_my_nearest_for_waste,

http://www.monmouthshire.gov.uk/info/100006/environment_and_planning/1156/fortnightly_refuse_collections/2

8.1.3 **Stevenage**

Stevenage Borough Council⁷ promotes the use of real nappies and offers cash back to families who participate in a nappy laundering scheme.

Table 21 - Stevenage scheme details

Contact	Chris Dorow (chris.dorow@stevenage.gov.uk) – Manager of collection. Service Centre 01438 242242
Booking /admin systems	Contact customer services and complete application form.
Eligibility	If householder has children under 3 years of age and use disposable nappies.
Container/collection	Purple sacks
Vehicle type	Lightweight freighter? Same vehicles that is used for missed collections.
Additional staff requirements	Dedicated team The 'Street Smart' person, who collects missed bins, also collects the purple nappy bags.

⁷ <http://www.stevenage.gov.uk/recycling-and-waste/refuse-recycling-collections>

Collection frequency	Weekly if required. One week residents place nappies in the refuse, the next week use the purple sack collection service.
Operational risks and difficulties	Problems include: <ul style="list-style-type: none"> - residents overfilling bags – manual handling issue with constant heavy lifting. - residents requesting the service and then not using it or only partially using it (need to constantly monitor this) - rising costs of the service should it prove popular
Households on scheme	700 households

Source: direct contact with Council 010212, <http://www.stevenage.gov.uk/recycling-and-waste/refuse-recycling-collections>

8.1.4 **Watford**

Table 22 - Watford scheme details

Contact	Beverley Beri – Section Head Waste and Recycling – Beverley.beri@watford.gov.uk 01923 226400 – General number
Booking /admin systems	Sacks sold at 25p each
Eligibility	
Container/collection	White plastic sacks. Placed next to black wheeled bin on refuse collection day.
Vehicle type	
Additional staff requirements	
Collection frequency	
Operational risks and difficulties	

Source: direct contact, <http://www.watford.gov.uk/ccm/content/ehl/environmental-services/nappies-collection-and-cashback-scheme.en;jsessionid=6BB24714DB40F1C2306013D4673779E7>.

8.1.5 **Teignbridge District Council**

Teignbridge do not widely communicate their nappy waste collection and actively promote real nappies to reduce the amount of nappy waste.

Table 23 - Teignbridge District Council scheme details

Contact	01626 215841 – Chris Braines – Waste Team 01626 215838 – General Council number
Booking /admin systems	Register with council. HHs need to call to request additional sacks when they will be questionnaire to try and ascertain if they are still eligible.
Eligibility	Two or more children in nappies under the age of two
Container/collection	Roll of clear sacks provided by Council

	Sack placed next to black bin. Residents are encouraged to place the waste sacks in their normal bin if there is space.
Vehicle type	Same vehicle as refuse collection.
Additional staff requirements	None
Collection frequency	Fortnightly – same day as black bin
Operational risks and difficulties	None in addition to normal residual waste collection. The additional collection has been running for over 7 years.
Number of households	c.200 No assessment was carried out to assess how many households were likely to register with the service.

Source: direct from Council 030212, <http://www.teignbridge.gov.uk/index.aspx?articleid=10958>

8.1.6 **Swansea City**

The Council is continuing to promote real nappies and are also considering options for recycling the waste stream. The Council would be interested in hearing the outcomes of the trials.

Table 24 - Swansea scheme details

Contact	Rob Thomas – rob.thomas@swansea.gov.uk / 07796 275202 General number – 01792 635500
Booking /admin systems	Registration form
Eligibility	No restriction
Container/collection	Refuse bag (supplied by householder). Council provides sticker. Limited to one black bag per fortnight.
Vehicle type	Transit tipper
Additional staff requirements	c.2 FTE (they think it is two members of staff but are currently trying to find out)
Collection frequency	Fortnightly (on general waste collection weeks nappies included in general waste).
Operational risks and difficulties	Heavy bags when overfilled.
Number of households	c.800 out of an estimated possible 3,000 collections.

Source: direct contact with Council 010212

8.1.7 **Three Rivers District Council**

Collection of nappy sacks fortnightly (with green bins) or an enhanced weekly collection service, at extra cost.

Table 25 - Three Rivers scheme details

Contact	Ruth Tucker – ruth.tucker@threerivers.gov.uk Callcentre 01923 776611
Booking /admin systems	Stickers supplied in rolls of 13, sufficient for the extra collection

	of one sack each week over a six month period, at a cost of £22.75 per roll
Eligibility	Open
Container/collection	
Vehicle type	
Additional staff requirements	
Collection frequency	Fortnightly or optional weekly collection
Operational risks and difficulties	

Source: <http://www.threerivers.gov.uk/Default.aspx/Web/WeeklyNappyCollections>

8.1.8 **Cardiff Council**

Optional service for those with particularly high amount of nappies and incontinence pads; otherwise residents encouraged to continue to use their residual bin.

Table 26 - Cardiff Council scheme details

Contact	Catherine – 02920 717500 ext 17734
Booking /admin systems	
Eligibility	
Container/collection	Hygiene bags – maximum of 4 per collection.
Vehicle type	
Additional staff requirements	
Collection frequency	Fortnightly – alternate week to general waste collection.
Operational risks and difficulties	
Number of households	

Source: <http://www.cardiff.gov.uk/content.asp?nav=2%2C2870%2C4049%2C6359>

8.1.9 **Epsom and Ewell**

Phoned 010212 – John Sharpe – he suggested I talk to Sue Barham at Woking Council re Surrey Waste Partnership arrangements.

Council does not widely promote service due to costs involved and wish to continue to promote real nappies as an alternative. Council is part of the Surrey Waste Partnership. Surrey Waste Partnership is in discussions with Knowaste regarding a local trial. Currently a company called GreenBottoms collects nappies from nurseries and send to the Knowaste facility – they are hoping to piggy back on these existing arrangements.

Uptake by householders has been less than expected. Council expected the uptake to be between 2,000-4,000 households. The birth rate is over 800 per year and the region has a high percentage aged over 65.

Table 27 - Epsom and Ewell scheme details

Contact	John Sharpe – j.sharpe@epsom.ewell.gov.uk General number – 01372 732555
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Booking /admin systems	Online form for registration.
Eligibility	No assessment. Free service to anyone with nappy, incontinence or colostomy waste. Service is provided for 12 months and then householder is contacted to see if they want to continue with the service.
Container/collection	140 litre wheelie
Vehicle type	RCV
Additional staff requirements	2 FTE for dedicated fortnightly crew.
Collection frequency	Weekly. One week with residual waste bin. One week with dedicated crew.
Operational risks and difficulties	Operatives monitor to check the containers are used for AHP waste. However, not clear how proactively this is done. To date there have only been 3-4 incidents reported where the containers were used for other waste streams. No specific risk assessment for nappy waste as the waste is collected in the same bins as residual waste. The waste is also tipped with residual waste.
Households	c.1,000

Source: direct contact with Council 010212, <http://www.epsom-ewell.gov.uk/EEBC/EEBC+Admin/BWSforms/CRM+Forms/Nappy+collection+service+application+form.htm>

8.1.10 *St Albans District Council*

NB: St Albans very interested in hear the outcome of the trials – they are considering sending the material to Knowaste.

Table 28 - St Albans scheme details

Contact	Jane Parker – 01727 866100 General Council number – 01727 866100
Booking /admin systems	Contact council directly
Eligibility	Fortnightly free but if residents wish to have a weekly collection they pay £19.50 for a 6 months' supply of bags (26 bags).
Container/collection	White sack. Sacks marked as 'nappies only'
Vehicle type	Separate cadged vehicle for weekly collection.
Additional staff requirements	Use existing refuse crews – 1 member of staff required for paid collection.
Collection frequency	Fortnightly. Designated collection day for paid collection.
Operational risks and difficulties	When the Council moved to a twin bin system in 2008 it was possible for families with 2+ children to request a larger bin. The uptake of this service was too high and the Council was not able to meet the demand for bins. The sack collection allows distribution only to those who need it and the sacks will only be

	<p>collected if they have been used for nappies.</p> <p>The sack collection works well as the Council does not have to monitor demand or manage retrieval of containers that are no longer required.</p> <p>Some residents raised concerns about hygiene in relation to using the sacks for collection.</p>
Households	60 households on weekly service

Source: direct contact with the Council 010212.

9 AHP Hazards and Risks

Definitions

For the process of the hazard and risk assessment the AHP has been treated as hygiene / offensive waste and not clinical waste.

Offensive/hygiene waste is defined by the Department of Health as waste that:

- may cause offence due to the presence of recognisable healthcare waste items or body fluids;
- does not meet the definition of an infectious waste;
- does not possess any hazardous properties; and
- is not identified by the producer, or holder, as needing disinfection, or any other treatment, to reduce the number of microorganisms present.

Offensive/hygiene waste (previously known as sanpro) is not 'special waste' under environmental legislation if:

- it is considered non-infectious
- does not require specialist treatment or disposal

The Department of Health categorise offensive waste from municipal sources as EWC code 20 01 99.

Risks and Hazards

Offensive/hygiene waste has the potential to harm the health of those exposed to it. Typical effects can be:

- skin/eye infections (e.g. conjunctivitis);
- gastroenteritis (symptoms include stomach cramps, diarrhoea and vomiting)

The waste should not be compacted unless in accordance with the conditions of an environmental permit/waste management licence. Procedures should be in place to contain, minimise, and monitor potential bio-aerosol release.

Table 1 outlines the aspects for consideration outlined by the HSE when considering necessary control measures for handling offensive/hygiene waste.

Table 29 - HSE aspects for consideration

Element of AHP handling	Considerations in relation to control measures
Collection:	<ul style="list-style-type: none"> • bag/receptacle collection procedures and clear roles and responsibilities for all staff; • collections frequent enough to ensure the storage capacity of the site is not exceeded; • effective recording of the receipt and transfer of waste materials (this can help in the identification of poor segregation and labelling by producers and clients); • handling of bags kept to a minimum and materials transferred, transported or handled to prevent rupturing of bags. Bags should not be manually compacted to increase capacity; • collectors/loaders only removing bags that are clearly marked/labelled;

	<ul style="list-style-type: none"> • arrangements for reporting spillages, inadequate or incorrect packaging and labelling of excessively heavy consignments. collectors/loaders need to know who to tell and how to contact them; • a safe system for avoiding spillages during transportation. Placing bags within wheeled bins or other suitable rigid containers, or loading them directly into leak-proof vehicles or containers, can reduce the risk of spillage. Spillages/leakage of wastes stored at the customer site should be dealt with by site staff following their own organisation clean-up procedures; • provision of appropriate personal protective equipment; • what to do in an emergency/sharps injury, as well as fire and first aid procedures.
Lifting and handling:	<p>Wheeled bins are preferable to bags as they can reduce the risk of manual handling and sharps injuries.</p> <p>Bags should not be overfilled, e.g. be more than three quarters full, and should be tied at the neck. Contents should be double bagged if there is a possibility of leakage.</p> <p>Collectors/loaders should:</p> <ul style="list-style-type: none"> • handle offensive (and domestic) waste bags by the neck and should not drop, drag or throw bags; • not accept or remove overfilled or leaking bags
Storage and opening of bags:	<p>Offensive/hygiene wastes should be stored in designated areas prior to treatment or disposal. Opening of bags should be avoided. Effective segregation at source will eliminate/reduce the need to open bags.</p> <p>Where bags have to be opened then mechanical aides or handled tools can reduce the risk of injury and contact with potentially harmful material.</p> <p>Have procedures for the handling and packaging of sharps and other contra-materials that have been incorrectly placed within the offensive/hygiene waste stream. This will include provision of dedicated/labelled receptacles, tools and personal protective equipment</p>
Minimising infection risk:	<p>Brief collection crew and driver of risks to health and ways in which they can pick up infections.</p> <p>Systems to report damaged equipment and get it replaced</p> <p>Access to first aid kit – all exposed wounds should be covered.</p> <p>Changing out of contaminated clothing before eating, drinking or smoking</p> <p>Clean contaminated equipment on site</p> <p>Report illnesses to employer</p> <p>Provide appropriate equipment for each task such as litter-picking tongs, hand brushes, shovels and rigid containers (for the removal of sharps and other hazardous/infectious waste). It may be necessary to implement procedures for cleaning and disinfecting equipment (e.g. picking tongs)</p> <p>Make sure personal hygiene regime highlighted.</p> <p>Vaccinations: Where effective vaccines are available against microorganisms to which employees may be exposed, then employers are required to make them available, free of charge, to employees. Employees should be informed of the benefits and drawbacks of both vaccination and non-vaccination. It is recommended that employers keep a vaccination record. Remember that although it is a useful additional measure, vaccination/inoculation is not a substitute for other control measures</p>

Risk Assessment Measurement

A risk matrix has been used to identify the need to incorporate risk abatement measures. Risk scores are calculated by multiplying the likelihood of occurrence on the x axis with the severity of the outcome on the y axis.

Figure 16- Risk assessment matrix

Major	Green	Yellow	Red	Red
Serious	Green	Yellow	Red	Red
Minor	Green	Yellow	Yellow	Yellow
Insignificant	Green	Green	Green	Green
	1 Rarely	2 Unlikely	3 Likely	4 Very Likely

For example a likely occurrence with a serious outcome would be calculated as:

Y axis = 3, x axis = 3, $x*y = 9$, risk score = 9

From the risks identified the maximum risk score any of the contract types can have is 16 and overall risk scores can be grouped into low, medium and high risk where:

Low risk: 0-5

Medium risk: 5 - 10

High risk: 10 - 16

Appendix 2 – Full Trial Results and Monitoring & Evaluation Methodology

Glossary

SIMD: "The Scottish Index for Multiple Deprivation (SIMD) identifies small area concentrations of multiple deprivation across all of Scotland in a consistent way. It allows effective targeting of policies and funding where the aim is to wholly or partly tackle or take account of area concentrations of multiple deprivation.

"The SIMD is presented at data zone level, enabling small pockets of deprivation to be identified. The data zones, which have a median population size of 769, are ranked from most deprived (1) to least deprived (6,505) on the overall SIMD and on each of the individual domains. The result is a comprehensive picture of relative area deprivation across Scotland⁸."

SIMD quintile: SIMD rank data zones are grouped into 5 quintiles (of 20%) according to rank as follows: 1 = 1-1301, 2 = 1302-2062, 3 = 2603-3903, 4 = 3904-5204, 5 = 5205-6505.

Stratification: the process of dividing members of the population into homogeneous subgroups before sampling in a statistical survey.

Waste composition analysis (WCA): a study that provides information on the materials that are in a given waste stream.

⁸ <http://www.scotland.gov.uk/Topics/Statistics/SIMD/>

Waste Compositional Analysis

Introduction and methodology

Introduction

In order to obtain an understanding of the available yields of Absorbent Hygiene Products (AHPs) in each of the local authority trial areas Zero Waste Scotland asked Nicki Souter Associates (NSA) to manage a Waste Compositional Analysis (WCA).

A programme was formulated whereby the sampling frame would be developed by NSA, the individual local authorities would be responsible for uplifting the waste and Fife Council would sort the waste. All data analysis was conducted by NSA

Background

A WCA specific to AHPs presented one major barrier in that it would be necessary to sample only households which are known to use either disposable nappies or Incontinence Products (IPs). Many local authorities hold databases on households with extra residual waste capacity, however, these would not prove sufficient to identify an up-to-date and accurate list of AHP users suitable for a such a WCA. It was therefore decided to conduct the WCA towards the end of the opt-in period at each local authority but before the AHP containers or bags had been distributed to participating households. In this way, it would be possible to definitively identify nappy and IP users in each trial area and, at the same time, to sample their AHP waste before it was diverted to the segregated AHP collection stream.

This proved to be a challenging procedure as operational difficulties (affected, in some way, by the procurement process) resulted in changes to the planned timetable and hence the WCA plan.

In addition, resourcing issues at each local authority meant that it was not possible to collect nappy using householders waste separately from IP household waste. (It was also not possible to source an appropriate split body vehicle in which the two streams could be collected at the same time due.) Further resourcing difficulties at North Lanarkshire Council meant that the WCA waste was uplifted by a member of the Fife Council team accompanied by a Waste Minimisation officer from North Lanarkshire Council.

Sampling frame

A sampling regime was planned whereby the residual waste from 50 nappy using households and 50 IP using households would be analysed at each local authority. Due to low opt-in numbers (especially for IP users) it was not always possible to sample 50 households per user category at each local authority. Where possible additional nappy user bins were sampled in order to effectively utilise the sorting resources available.

In Perth & Kinross, as the trial is of a different specification in each of the three sub-trial areas, it was endeavoured to collect nappy household waste from at least 16 households in each of Auchterarder, Crieff and Tulloch. As less than 50 IP users opted-in in the whole Perth & Kinross trial area, all IP user households were sampled in each area.

It was endeavoured at each local authority to sample households broadly representative of the opted-in population in terms of:

- SIMD quintile
- The number of AHP users per household
- The age of AHP users per household

In order to inform this process, each household which opted in to the AHP trial was asked a series of questions by the call centre operative including:

- Address (with postcode)
- Number of nappy and/or IP users in the household
- The age of the AHP users
- Household use of Household Waste Recycling Centres (HWRCs) for residual waste
- Use of real nappies (in Perth & Kinross)
- Additional residual waste capacity (e.g. extra/large residual waste bin)

In most cases answers were provided for all these questions however there were a number of occasions where one or more pieces of information were not recorded in the opt-in files compiled at each local authority. Where possible households with limited data were not included in the sampling frames, however, due to low opt-in numbers it was sometimes necessary to include these households to increase the sample size. Where the number of AHP users was not recorded, it was assumed the number of user ages entered corresponded to the number of users at that address. For households where no user age was entered it was assumed that each household contained one AHP user.

In the Dunblane area of Stirling it was possible to create a sampling frame which did not contain any households that use HWRCs for residual waste (as the omission of these households did not greatly affect the sample size), however, this was not possible in any of the other trial areas. For the purposes of the subsequent sampling frames no differentiation was made in terms of the stated use of HWRCs for residual waste.

In most cases where user numbers seemed high these households were not included in the sampling frame as it was thought they may indicate nurseries or sheltered housing where samples may not be representative of average household arisings.

Uplift

The uplift waste largely went according to plan, however, there were a number of instances where bins earmarked for sampling were emptied by the normal collection crews prior to the sample team arriving. In some cases alternative AHP user households were sampled in the place of the empty bin households, however, in a number of cases this was not possible and sample sizes were smaller than hoped for.

In the Tulloch area of Perth & Kinross there was no information recovered from the collection process in terms the number of households from which WCA waste was uplifted.

In North Lanarkshire a communication error led to all bins from the opted-in population being uplifted in the one collection (as opposed to the bins being uplifted on their scheduled collection day). This resulted in some bins being included which did not contain a full fortnight's residual waste.

Representativeness

Sampling frames were stratified proportionally for the SIMD quintile of the area, the number of AHP users per household and the age of AHP user. Despite the number of missed bins in the uplifts, the samples still remained broadly representative of the opted-in populations in each area.

Sorting

Waste was sorted into the categories listed in Table 30. (On opening a bag of waste the sorter determined whether the contents originated from a nappy user or an IP user based on the most prevalent AHP product.) In

principal each bag should only contain either nappy waste or IP waste (in terms of target AHP waste) as all households with both nappy and IP users were excluded from the sample.

It was found that nappies and incontinence pads were distinguishable from each other with relative ease. As a result of the difference in size of the two different types of product and the fact that a number of nappy brands displayed printed branding, both nappies and incontinence pads were relatively easily identified and subsequently sorted.

Only in the Plean & Cowie area of Stirling were IP products found in waste bags deemed to have come from a nappy using household (and in very small quantities). No nappy waste was found in any bags identified as being from IP users. In this report the results have, therefore, been presented assuming that all nappy waste has come from nappy using households and all IP waste has come from IP using households.

Table 30 – WCA sort categories

User category	Product category
1. Nappy users	a. nappies
	b. associated nappy products
	c. incontinence products
	d. associated incontinence products
	e. feminine hygiene products
	f. residual waste
2. Incontinence product users	a. nappies
	b. associated nappy products
	c. incontinence products
	d. associated incontinence products
	e. feminine hygiene products
	f. residual waste
3. Unknown users	a. feminine hygiene products
	b. residual waste

Bagged waste which remained intact after collection was able to be sorted into the relevant category for both nappy users and incontinence product users. However, it was found that issues did arise in determining the origin of loose waste in terms of whether it had originated from households with nappy users or households with incontinence product users.

This resulted in a necessity to classify residual loose waste as 3b. 'unknown users – residual waste' rather than being able to sort it into either category 1f. and 2f.

The presence of loose waste also led to issues with the classification of 'associated products' and whether they were 'associated nappy products' or 'associated incontinence products'. The identification of the origin of 'associated products' and 'feminine hygiene products' was also affected by loose waste.

In many cases the associated products were contained in hygiene bags before depositing the AHP waste in the residual bin. In the Fife sample all associated products appear to have been inseparable from the nappy and IP waste; there were, therefore, no separate figures for associated nappy products or associated IP products recorded. Results in this report have, therefore, been based on arisings of 'All nappy products' (i.e. nappies plus associated nappy products) and 'All IP products' (i.e. IPs plus associated incontinence products)

It was noted that in terms of the quality of the sort, it was important that the waste was not compacted after collection. This led to an increased number of burst bags and, therefore, increased difficulty in identifying the origin of the waste and the classification of 'associated products'.

Results

The arisings calculations in this section are based on recent lists of opted-in households to the AHP trial. The stated estimations will therefore change according to any change in trial population.

Stirling Council

Table 31 shows that the average AHP arisings per nappy user in the combined Stirling sample was 4.06 kg/user/wk. When adjusted for each area it is estimated that there are approximately 955kg per week of nappy waste arisings from the opted-in households.

Table 31 – Nappy household results (Stirling Council)

	Sample		kg/user/wk			Opt-in population			
	Nappy users	Nappy hhs	Nappies	Assoc. nappy products	All nappy products	Nappy hhs	Users/hh	Users	Weekly arisings (kg)
Dunblane	25	22	3.83	0.20	4.04	84	1.41	119	478.62
Fallin	8	8	5.63	0.03	5.66	24	1.00	24	135.75
Plean Cowie	36	27	3.72	0.01	3.73	61	1.50	92	341.09
Total	69	57	3.98	0.08	4.06	169		229	955.46

Table 32 shows that the average AHP arisings per IP user in the combined Stirling sample was 1.02 kg/user/wk. When adjusted for each area it is estimated that there is approximately 39kg per week of IP waste arisings from the opted-in households.

Table 32 – IP household results (Stirling Council)

	Sample		kg/user/wk			Opt-in population			
	IP users	IP hhs	IPs	Assoc. IP products	All IP products	IP hhs	Users/hh	Users	Weekly arisings (kg)
Dunblane	8	8	1.31	0.28	1.59	17	1.15	20	31.14
Fallin	3	2	0.13	0.00	0.13	7	1.40	10	1.31
Plean Cowie	3	3	0.37	0.03	0.40	16	1.00	16	6.40
Total	0	0	0.86	0.16	1.02	40		45	38.85

Table 33 shows the estimated weekly AHP arisings from opted-in households that contain both Nappy and IP users (12kg).

Table 33 – 'Both' AHP product using household results (Stirling Council)

	Opt-in population					
	'Both' hhs	Nappy users	IP users	Weekly nappy arisings (kg)	Weekly IP arisings (kg)	Total weekly AHP arisings (kg)
Dunblane	0	0	0	0.00	0.00	0.00
Fallin	2	2	3	11.31	0.40	11.71
Plean Cowie	0	0	0	0.00	0.00	0.00
Total	2	2	3	11.31	0.40	11.71

Table 34 shows that there are approximately 1,017kg of AHP waste available within the opted-in households in Stirling. (This is subject to change as the opted-in population changes.)

Table 34 – Total estimated AHP arisings in the opted-in households (Stirling Council)

	Total AHP / week	
	kg/week	kg/hh/wk
Nappy	966.8	5.65
IPs	39.2	0.93
FHP	11.30	0.05
Total	1,017.3	4.82

Perth & Kinross Council

Due to data loss during the collection process, average arisings figures for Tulloch have been derived using the average yield per user figures from the Auchterarder and Crieff areas.

Table 35 shows that the average AHP arisings per nappy user in the combined Perth & Kinross sample was 3.19 kg/user/wk. When adjusted for each area it is estimated that there are approximately 502kg per week of nappy waste arisings from the opted-in households.

Table 35 – Nappy household results (P&K Council)

	Sample		kg/user/wk			Opt-in population			
	Nappy users	Nappy hhs	Nappies	Assoc. nappy products	All nappy products	Nappy hhs	User/hh	Users	Weekly arisings (kg)
Auchterarder	21	16	2.54	0.04	2.58	52	1.28	67	171.79
Crieff	22	17	3.70	0.07	3.77	38	1.31	50	186.94
Tulloch	-	-			3.19	35	1.28	45	142.98
Total	43	33	3.13	0.06	3.19	125		161	501.71

Table 32 shows that the average AHP arisings per IP user in the combined Perth & Kinross sample was 0.69 kg/user/wk. When adjusted for each area it is estimated that there are approximately 28kg per week of IP waste arisings from the opted-in households.

Table 36 – IP household results (P&K Council)

	Sample		kg/user/wk			Opt-in population			
	IP users	IP hhs	IPs	Assoc. IP products	All IP products	IP hhs	User/hh	Users	Weekly arisings (kg)
Auchterarder	6	6	0.60	0.17	0.77	13	1.08	14	10.73
Crieff	15	14	0.59	0.07	0.66	20	1.06	21	14.03
Tulloch					0.69	5	1.00	5	3.45
Total	21	20	0.59	0.10	0.69	38		40	28.21

Table 37 shows the estimated weekly AHP arisings from opted-in households that contain both Nappy and IP users (36kg).

Table 37 – ‘Both’ AHP product using household results (P&K Council)

	Opt-in population					
	'Both' hhs	Nappy users	IP users	Weekly nappy arisings (kg/hh/wk)	Weekly IP arisings (kg/hh/wk)	Total weekly AHP arisings (kg)
Auchterarder	5	9	4	23.23	3.07	26.30
Crieff	3	2	4	7.54	2.64	10.18
Tulloch	0	0	0	0.00	0.00	0.00
Total	8	11	8	30.76	5.71	36.47

Table 38 shows that there are approximately 572kg of AHP waste available within the opted-in households in Perth & Kinross. (This is subject to change as the opted-in population changes.)

Table 38 – Total estimated AHP arisings in the opted-in households (P&K Council)

	Total AHP / week	
	kg/week	kg/hh/wk
Nappy	532.5	4.00
IPs	33.9	0.74
FHP	5.16	0.03
Total	571.6	3.34

Fife Council

Table 39 shows that the average AHP arisings per nappy user in the combined Fife sample was 2.51 kg/user/wk. When adjusted for each area it is estimated that there are approximately 137kg per week of nappy waste arisings from the opted-in households.

Table 39 – Nappy household results (Fife Council)

Route	Sample		kg / user / wk			Opt-in population			
	Nappy users	Nappy hhs	Nappies	Assoc. nappy products	All nappy products	Nappy hhs	User/hh	Users	Weekly arisings (kg)
1G - MONDAY	8	8	3.63	0.00	3.63	9	1.00	9	32.63
1G - WEDNESDAY	12	11	2.45	0.00	2.45	11	1.09	12	29.40
1G - THURSDAY	14	9	2.77	0.00	2.77	9	1.56	14	38.80
1G - FRIDAY	10	7	1.48	0.00	1.48	8	1.38	11	16.28
1B - MONDAY	4	3	2.18	0.00	2.18	8	1.13	9	19.58
Total	48	38	2.51	0.00	2.51	45		55	136.68

Table 40 shows that the average AHP arisings per IP user in the combined Fife sample was 1.49 kg/user/wk. When adjusted for each area it is estimated that there are approximately 24kg per week of IP waste arisings from the opted-in households.

Table 40 – IP household results (Fife Council)

	Sample		kg/user/wk			Opt-in population			Weekly arisings (kg)
	IP users	IP hhs	IPs	Assoc. IP products	All IP products	IP hhs	User/hh	Users	
1G - MONDAY	3	3	0.50	0.00	0.50	3	1.00	3	1.50
1G - WEDNESDAY	1	1	2.60	0.00	2.60	1	1.00	1	2.60
1G - THURSDAY	4	3	0.45	0.00	0.45	3	1.33	4	1.80
1G - FRIDAY	1	1	2.00	0.00	2.00	2	1.00	2	4.00
1B - MONDAY	1	1	7.00	0.00	7.00	2	1.00	2	14.00
Total	10	9	1.49	0.00	1.49	11		12	23.90

Table 41 shows the estimated weekly AHP arisings from opted-in households that contain both Nappy and IP users (17kg).

Table 41 – ‘Both’ AHP product using household results (Fife Council)

	Opt-in population					
	Both hhs	Nappy users	IP users	Weekly nappy arisings (kg)	Weekly IP arisings (kg)	Total weekly AHP arisings (kg)
1G - MONDAY	2	2	1	7.25	0.50	7.75
1G - WEDNESDAY	0	0	0	0.00	0.00	0.00
1G - THURSDAY	0	0	0	0.00	0.00	0.00
1G - FRIDAY	2	3	2	4.44	0.90	5.34
1B - MONDAY	1	1	1	2.18	2.00	4.18
Total	5	6	4	13.87	3.40	17.27

Table 42 shows that there are approximately 184kg of AHP waste available within the opted-in households in the official trial area in Fife. (This is subject to change as the opted-in population changes.) Some opted-in households appear to be situated outside the official trial area and have not been included in these figures.

Table 42 – Total estimated AHP arisings in the opted-in households (Fife Council)

	Total AHP / week	
	kg/week	kg/hh/wk
Nappy	150.5	3.01
IPs	27.3	1.71
FHP	6.10	0.10
Total	183.9	3.02

North Lanarkshire Council

Due to a corrupted sample in North Lanarkshire, average AHP arisings indicators have been taken from the Stirling sample.

Table 43 shows that there are approximately 155kg of AHP waste available within the opted-in households in the official trial area in North Lanarkshire. This is based on 27 nappy using households, 6 IP using households and 1 household that uses both nappies and IPs. (This is subject to change as the opted-in population changes.) Some opted-in households appear to be situated outside the official trial area and have not been included in these figures.

Table 43 – Total estimated AHP arisings in the opted-in households (North Lanarkshire Council)

	Total AHP / week	
	kg/week	kg/hh/wk
Nappy	146.3	5.22
IPs	7.2	1.02
FHP	1.82	0.05
Total	155.2	4.57

Comparison and context of results

Background

Some variation was observed between the average arisings per user in each of the sampled areas. In order to investigate the variation a suite of indicators was calculated using the eight sampled data points (i.e. sampled loads) across the three local authorities (Stirling, Perth & Kinross and Fife). They include:

- average SIMD quintile per user/household
- average age (point) per user (**IP users:** 1 = 18-29, 2 = 30-44, 3 = 45-59, 4 = 60+; **Nappy users:** 1 = 0-6 months, 2 = 7-12 months, 3 = 13-18 months, 4 = 19-24 months, 5 = +2 years)
- proportion of users/households using HWRCs for excess residual waste
- proportion of users/households with extra residual waste capacity
- proportion of users/households using real nappies.

Due to the limited number of data points (eight) and the fact that each data point is based on a different number of sampled bins this process can only be considered indicative, however, it does allow for some understanding of the results.

Nappy users/households

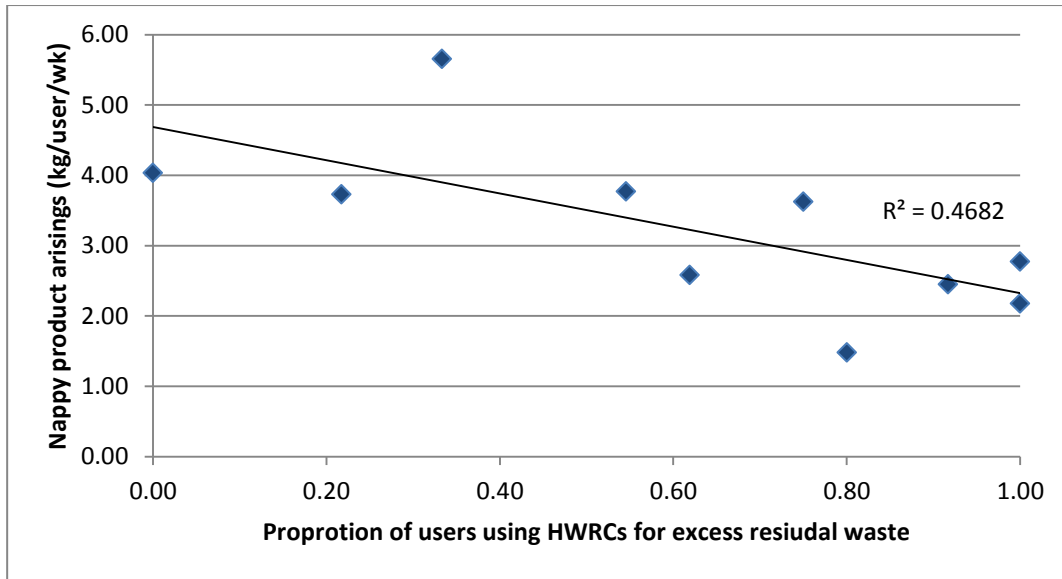
There was insufficient evidence to suggest that any of the variables *SIMD quintile*, *user age* or the *presence of extra residual waste capacity* are associated with the arisings of nappy products (per user or household).

Figure 17 shows that there is some evidence to suggest that HWRC use for excess residual waste may be related to the amount of AHP arisings detected in the WCA (nappy arisings were generally lower in the samples where HWRC use was higher). The *proportion of nappy users using HWRCs for excess residual waste* is significantly (negatively) correlated *with total nappy product arisings per user*, and regression analysis shows that HWRC variable describes around 40% of the variation in total nappy product arisings. This suggests that the samples taken in areas where households are known to use HWRCs more may underestimate total nappy arisings as some of the nappy waste may be deposited at HWRCs. For this reason, and in absence of any firm evidence suggesting a link between nappy arisings and either user age or SIMD quintile, the average arisings per user figure for Stirling Council has been used for North Lanarkshire Council, as the Stirling sample contains fewer households that use HWRCs for excess residual waste.

It should be noted that the average nappy arisings in Fife appear slightly lower than in other areas and use of HWRCs appears slightly higher (although the exact question relevant to HWRC use was differently worded in Fife than it was in the other participating local authorities). This maybe as a result of the reduced residual waste capacity in Fife (180l bins or less in Fife as opposed to 240l bins elsewhere) and may result in generally more visits to the HWRC. This suggests that more of the AHP stream may be found in the HWRC stream and that the WCA sample may underestimate the nappy arisings.

Information on real nappy use was only recorded in Perth & Kinross. Real nappy use was higher in the Auchterarder sample where nappy arisings were lower. Although not in any way conclusive, this may suggest that any future sampling should take into account real nappy use as this may have an effect on estimated arisings.

Figure 17 – Arisings per nappy user versus the proportion of nappy users⁹ using HWRCs for excess residual waste

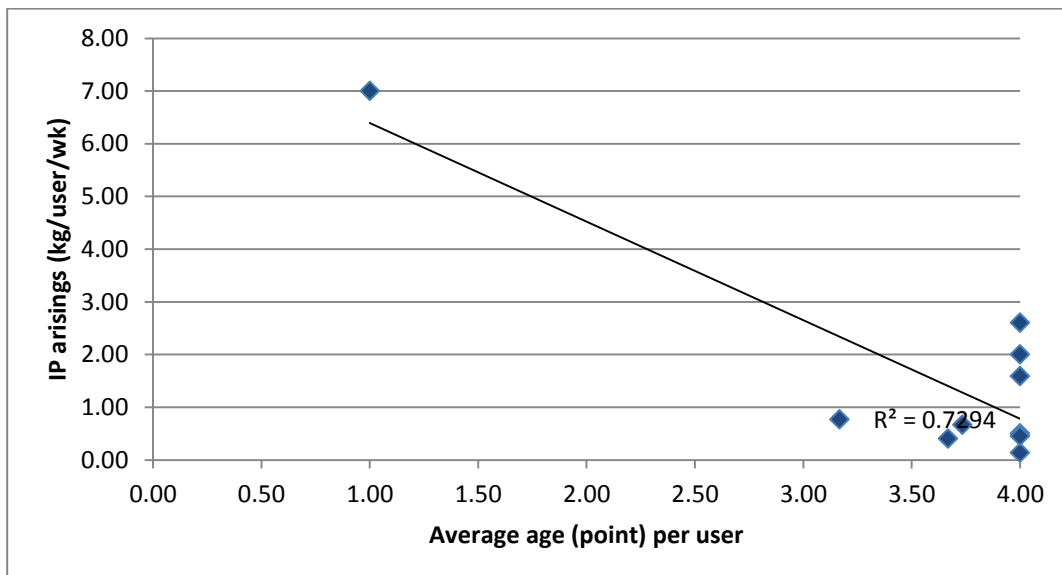


IP users/households

There was insufficient evidence to suggest that any of *SIMD quintile*, *HWRC use* or the *presence of extra residual waste capacity* are associated with the arisings of IPs (per user or household).

Figure 18 suggests that IP arisings may be higher for younger users, however, this suggestion is heavily influenced by one data point (which is based on a sample of one bin) so this cannot be considered enough evidence to draw firm conclusions. It does suggest, however, that IP user age is something that should be monitored during the participation stage of the study and taken into consideration in future WCAs.

Figure 18 – Arisings per IP user versus IP user age



⁹ i.e. nappy using households adjusted for the number of nappy users per household

The IP arisings in Fife seem higher than in other local authorities¹⁰, however, sample sizes were slightly smaller and arisings have been calculated for some areas based on one bin. For future calculations of generally expected yields it may be preferable to omit the more outlying data points.

¹⁰ This should be noted in contrast with nappy yields at Fife which appear low in comparison to other local authorities.

Monitoring & evaluation

Methodology

Set Out and Participation

Set Out and Participation - Kerbside

Participation and set out analysis was conducted twice for each of the kerbside services; shortly after the start of the trials and again near the end of the trials. For each participation study, information was collected over three consecutive AHP collection cycles. The data collected included:

- The number of AHP containers presented for each service type;
- The fill level of the 120 litre and 140 litre bins; and
- Any visible contamination.

The set out rate measured the proportion of households that put out AHP containers (bins or sacks) during one collection opportunity.

The participation rate measured the number of individual households which set out an AHP container (bins or sacks) at least once in a consecutive three week collection period. The data was sub-divided to detail specific nappy and incontinence product participation.

The fill level of the 120 and 140 litre bins in the Stirling and Crieff trials was measured by a visual check and assigned a grade to each bin indicating whether it was less than half full, full or overflowing. This procedure checked that the capacity of the 120 litre bins were sufficient for households.

The contamination level was measured by a visual check for the 120 and 140 litre bins in Stirling and Crieff.

Data was collected on the dates shown in Table 44.

Table 44 – Participation survey dates

		Survey 1 (2012)			Survey 2 (2013)		
		Week 1	Week 2	Week 3	Week 1	Week 2	Week 3
Stirling	Dunblane	3 rd Sept	10 th Sept	17 th Sept	21 st Jan	28 st Jan	4 th Feb
	Eastern villages	7 th Sept	14 th Sept	21 st Sept	18 th Jan	25 th Jan	1 st Feb
Perth & Kinross	All schemes	15 th Sept	22 nd Sept	29 th Sept	2 nd Feb	9 th Feb	16 th Feb

Participation - HWRC

Set out and participation analysis was not undertaken for the HWRC schemes because these were 'bring' collection services rather than kerbside services. As an alternative, a claimed participation rate was to be derived using household surveys. A short survey was developed to capture the following information:

- Average number of AHP bags deposited per week;
- Average recycling frequency;
- Percentage of AHP waste recycled.

Participating households requesting additional sacks at the two participating HWRCs were asked to complete the survey by Recycling Attendants over a five week period for each survey. Surveys were to be conducted twice for each of the HWRC services.

In Fife it is understood that many participants chose to return the questionnaire at a later date and some responses were received well after the end of the official five week period of Survey 1.

Survey 1 at Fife yielded only 16 responses and Survey 2 yielded only one response (from a respondent who had not participated in Survey 1). All 17 surveys were analysed together as one survey.

Due to teething problem at the start of the trial the survey period Survey 1 in North Lanarkshire was extended beyond the five weeks planned. In spite of this Survey 1 yielded no responses. Due to the lack of response Survey 2 was not conducted.

Table 45 – Initially planned survey periods for the HWRC schemes

	Survey 1	Survey 2
Fife	22 nd Oct - 25 th Nov, 2012	14 th Jan – 17 th Feb, 2013
North Lanarkshire	29 th Oct – 2 nd Dec, 2013	n/a

AHP Waste Compositional Analysis

The AHP waste compositional analysis was undertaken by Knowaste at the AHP recycling plant in West Bromwich and was used to quantify the relative proportions of nappy and incontinence product waste collected from opted-in households in each of the trial areas.

The uplifted tonnage of AHP was two tonnes, therefore a cone and quarter method was used to reduce the collected load to 10% (200kg)¹¹. The sample was then checked to ensure that each of the individual trials was represented approximately proportionally to its contribution to the overall load. Table 4 details the product categories used in this analysis.

Table 46: AHP Compositional Analysis Product Categories

Product Category
a. Nappies
b. Incontinence Products
c. Feminine Hygiene Products
d. Wipes, Cotton Buds and Cotton Wool
e. Disposable Gloves/Aprons
f. Feeding Tubes/Bags
g. Syringes

Waste Diversion

To assess the performance of each AHP trial scheme, the average yield and capture rates were calculated.

¹¹ The AHP Waste Compositional Analysis excluded AHP waste from North Lanarkshire due to low collection frequency.

Average Yield (kg/hh/wk)

The average weight of AHP material collected from all participating households in each trial area during the three week participation and set out period was divided by the number of opted-in households to give an average yield (kg/hh/wk). The average yield of the whole trial was calculated from the average weight of AHP material collected weekly in each trial divided by the estimated¹² weekly average number of opted-in households.

Capture Rate (%)

The average yield was divided by the total expected AHP arisings derived from the waste compositional analysis to give the proportion of household AHP waste that was recycled compared to the amount that could have been recycled.

Stirling

Participation and set-out

The participation rate for all AHP users in Survey 1 was 86%. The participation rate for all users in Survey 2 was 78%. It should be noted that the set-out in Week 2 of Survey 2 in the Eastern Villages may have been affected by heavy snow and that this may have artificially lowered the overall participation rate. It should also be noted that 9 households dropped out of the trial before the end.

Participation rate amongst nappy using households was 87% in Survey 1 and 78% in Survey 2. In Survey 1 there is some evidence to suggest that the participation rate does is higher in less deprived households¹³, particularly in IP user households, however, this is not the case in Survey 2¹⁴.

The participation rate amongst IP using households was 83% in Survey 1 and 77% in Survey 2. There is some evidence to suggest that participation was higher in the less deprived households in Survey 1 but this was not replicated in Survey 2¹⁵.

Both opted-in households that use both nappies and IPs participated in both surveys.

Set-out was not consistent within each survey. In Survey 1 set-out ranged from 63% to 70%. Set-out in Survey 2 was lower, ranging from 50% to 62%.

In Survey 1 there was some evidence to suggest that average set-out was lower in the more deprived households but this difference was less pronounced in Survey 2 as set-out in Dunblane reduced. The severe weather in the Eastern villages during Survey 2 may have artificially lowered the set-out for more deprived areas. In addition, there may be some evidence to suggest that set-out is higher on collection days which are also residual waste collection days. During Survey 2 Week 1 in the Eastern Villages was not a residual waste collection day whereas it was for Dunblane. Set-out may therefore not be comparable on a like-for-like basis.

Whatever the influencing factors, lower set-out is not necessarily an indicator that the service is capturing less AHP waste. Future studies may wish to monitor this phenomenon in greater detail to verify if average set-out rates across the deprivation spectrum eventually converge at somewhere between 50% and 60%.

¹² Opt-in dates of new households entering the scheme after the start of the trial were not always available.

¹³ SIMD 2009

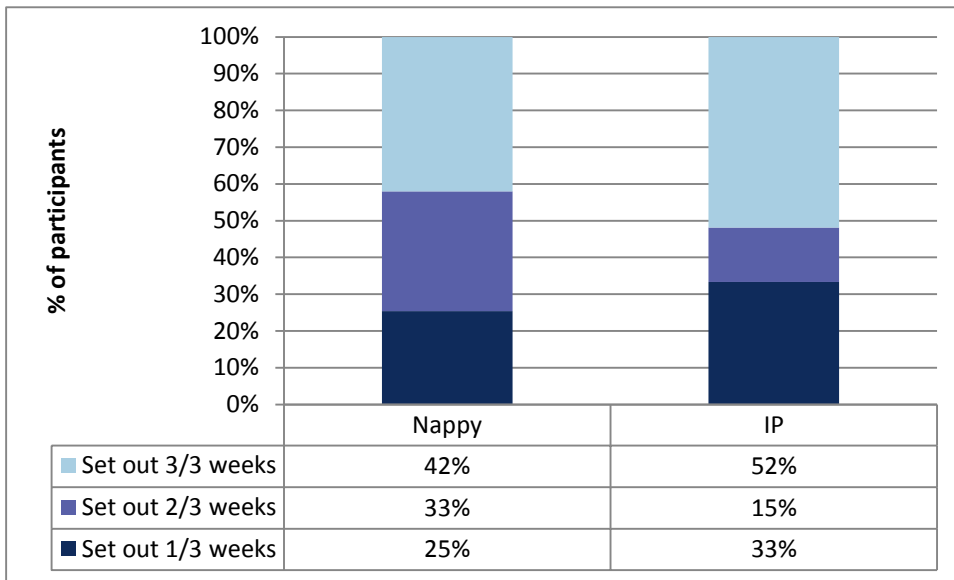
¹⁴ SIMD 2012

¹⁵ SIMD 2012 rankings were used in Survey 2 whereas only SIMD 2009 rankings were available for Survey 1.

Table 47 – Participation and set-out results for the Stirling trial

	User type	Survey 1	Survey 2
Participation rate	All users	86%	78%
	Nappy	87%	78%
	IP	83%	77%
Set-out rate	All users	63-70%	50-62%
	Nappy	61-70%	49-62%
	IP	60-71%	55-57%

Figure 19 – Set-out characteristics of participating households in Survey 2



Capacity

In general, there appears to be sufficient capacity for users of the AHP scheme.

Table 48 shows that only two households throughout the monitoring period presented an overflowing bin in Survey 1 (one nappy user and one IP user) and two households in Survey 2 (both IP users).

Table 48 – Bin fill levels of participants in the Stirling trial area

		Survey 1			Survey 2		
		Less than half full	More than half full	Overflowing	Less than half full	More than half full	Overflowing
Nappy users	Week 1	119	3	0	93	8	0
	Week 2	116	7	0	68	28	0
	Week 3	98	8	1	89	27	0
IP users	Week 1	28	2	0	22	2	0
	Week 2	20	4	1	19	1	1
	Week 3	28	2	0	14	6	1
Users of both	Week 1	1	0	0	1	0	0
	Week 2	0	0	0	1	0	0
	Week 3	2	0	0	1	0	0
TOTAL households		412	26	2	308	72	2
% of participants		94%	6%	0%	81%	19%	1%

Capture

The estimated arisings per opted-in household in the Stirling trial was 4.82 kg/hh/wk (see section 0).

Table 49 shows that the average yield per household that set out AHP waste in Survey 1 was 5.95 kg/setting out' hh/wk and the average yield per opted-in household was 3.99 kg/hh/wk. Over the three week participation monitoring period the capture rate was around 83%. The average yield per participating household (i.e. a household that participated at any point over the three weeks) works out at around 4.62 kg/setting out' hh/wk. This figure is slightly lower than the expected arisings per household from the WCA (4.82 kg/hh/wk) and corresponds to a capture rate amongst scheme participants of around 96%.

In Survey 2 the average yield per, however, the average yield per household that set out AHP waste was 6.34 kg/setting out' hh/wk, however, the average yield per opted-in household was lower at 3.39 kg/hh/wk. This can be explained by the lower participation rate (78%), however, with a capture rate of 70% the yield is lower than expected (the average yield per participating households down 6% since Survey 1 at 4.33 kg/setting out' hh/wk) – the capture rate amongst participants over these three weeks is therefore only 90%. This may be attributable to the bad weather during Survey 2.

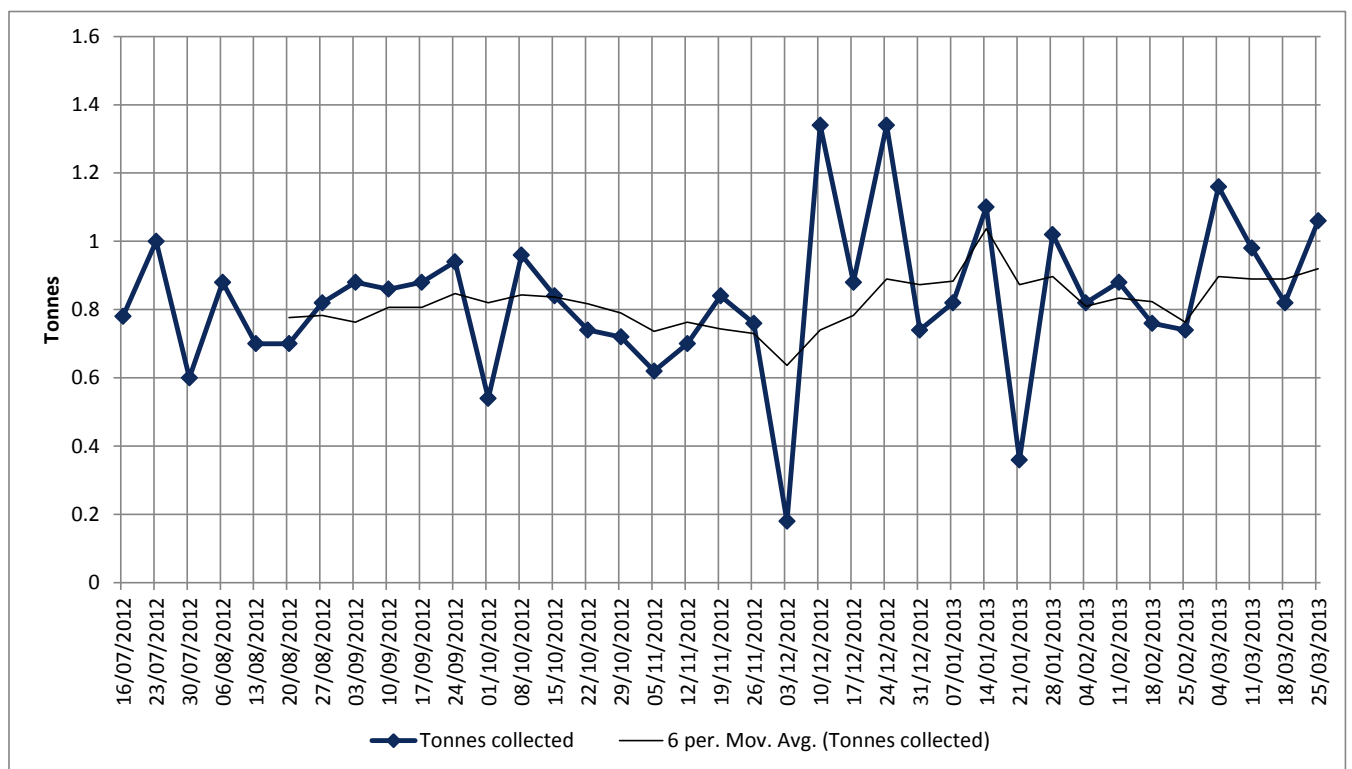
Table 49 – Average yield and capture rate in the Stirling trial

		Kg collected	kg/setting out hh/wk	kg/hh/wk	Capture rate	Part. Rate	Capture rate within participants	kg/part. hh/wk
Survey 1	Week 1	880	5.75	4.02	83%	86%	96%	4.62
	Week 2	860	5.81	3.93	81%			
	Week 3	880	6.33	4.02	83%			
	Average	873	5.95	3.99	83%			
Survey 2	Week 1	700	5.56	2.94	61%	78%	90%	4.33
	Week 2	720	6.10	3.03	63%			
	Week 3	1000	7.25	4.20	87%			
	Average	807	6.34	3.39	70%			
Whole trial		30,760	n/a	3.63	75%	n/a	n/a	n/a

Figure 20 shows average yields in excess 800kg per week in September/October followed by a decline in collected tonnages into December followed by generally higher tonnages in 2013 (the severe weather near the end of January can be associated with a temporary dip in tonnages followed by a spike and a return to higher yields. A weekly average yield of around 900kg per week would be consistent with the expected yield; this can be observed nearer the end of the trial when yields were generally higher however it was not consistent throughout all weeks.

Adjusting for the change in opted-in households throughout the trial, the overall average yield was approximately 3.63 kg/hh/wk, which corresponds to an overall capture rate of 75% i.e. slightly lower than the 78% participation observed in Survey 2. This suggests that, at some points in the year, a small amount of AHP waste is leaking out of the recycled stream amongst scheme participants. This should not be entirely unexpected as average capture throughput the whole year will be less than the expected yield derived from a WCA during school term time; traditional holiday periods are likely to take families away from home, thereby removing some AHP waste from the recycled stream. This 'lost' material is unlikely to be replaced in full by AHP users visiting the trial area.

Figure 20 – Collected AHP tonnages since October



Perth & Kinross

Participation and set-out

The participation rate for all AHP users was similar across all three schemes in Survey 1, however, the participation rate in Auchterarder and Tulloch was lower in Survey 2 while it increased in Crieff. It is understood that Survey 1 in Crieff may have been unrepresentative due to some missed households which were not highlighted in the survey data – this may have resulted in a misrepresentation in the true participation rate. It should also be noted that 5 households dropped out of the trial before the end.

In Survey 1, other than for nappy users in Auchterarder, there was no evidence to suggest that participation varied by SIMD rank. (For Auchterarder nappy users the participation rate was actually higher in the less

deprived households¹⁶.) In Survey 2, other than for IP users in Crieff, there was no evidence to suggest that participation varied by SIMD rank. For Crieff IP users the participation rate was higher in the more deprived households¹⁷.

The participation rate amongst IP using households differs across the three schemes in Survey 1. The Tulloch scheme had full participation amongst the few households that had opted in to the scheme. The Crieff scheme had the lowest participation rate (70%); this was the only scheme to use an external bin, however, it also had the highest number of opted-in households. In Survey 2 the participation rates remained the same apart from in Auchterarder where it dropped to 62%. There is no evidence to suggest that participation rate differs for IP user households by SIMD rank in any of the schemes.

All three of the households in Crieff which contained both nappy and IP users were participants in both Surveys 1 and 2. Of the five households in Auchterarder which contained both nappy and IP users four were participants in Survey 1 and three were participants in Survey 2.

In Auchterarder total set-out ranged between 52% and 59% during Survey 1 and 54% and 58% in Survey 2.

In Tulloch total set-out decreased from between 55% and 66% in Survey 1 to between 43% and 52% in Survey 2.

In Crieff total set-out increased from between 35% and 48% in Survey 1 to between 40% and 64% in Survey 2.

Table 50 – Participation and set-out results for the Perth & Kinross trial

		Auchterarder		Tulloch		Crieff	
	User	Survey 1	Survey 2	Survey 1	Survey 2	Survey 1	Survey 2
Participation rate	All	79%	72%	77%	66%	75%	81%
	Nappy	77%	76%	74%	62%	75%	85%
	IP	86%	62%	100%	100%	70%	70%
Set-out rate	All	52-59%	54-58%	55-66%	43-52%	35-48%	40-64%
	Nappy	48-54%	55-59%	51-67%	41-49%	34-47%	41-65%
	IP	57-71%	54%	40-100%	60-80%	37-44%	33-59%

Figure 21 shows set-out and participation rates in each area. The Survey 1 data suggested that, although each scheme was used by a similar percentage of households, users did not need to present AHP waste for recycling as often if supplied with an external bin, however higher set-out rates were observed in Survey 2, possibly due to some missed addresses in Survey 1. It is, however, evident that a large number of households do not present their bin every week. Figure 22 shows that for participating, nappy-using households in Survey 2 the Tulloch scheme had the highest percentage of households that presented AHP waste in all three weeks.

¹⁶ SIMD 2009

¹⁷ SIMD 2012

Figure 21 – Set-out and participation in P&K

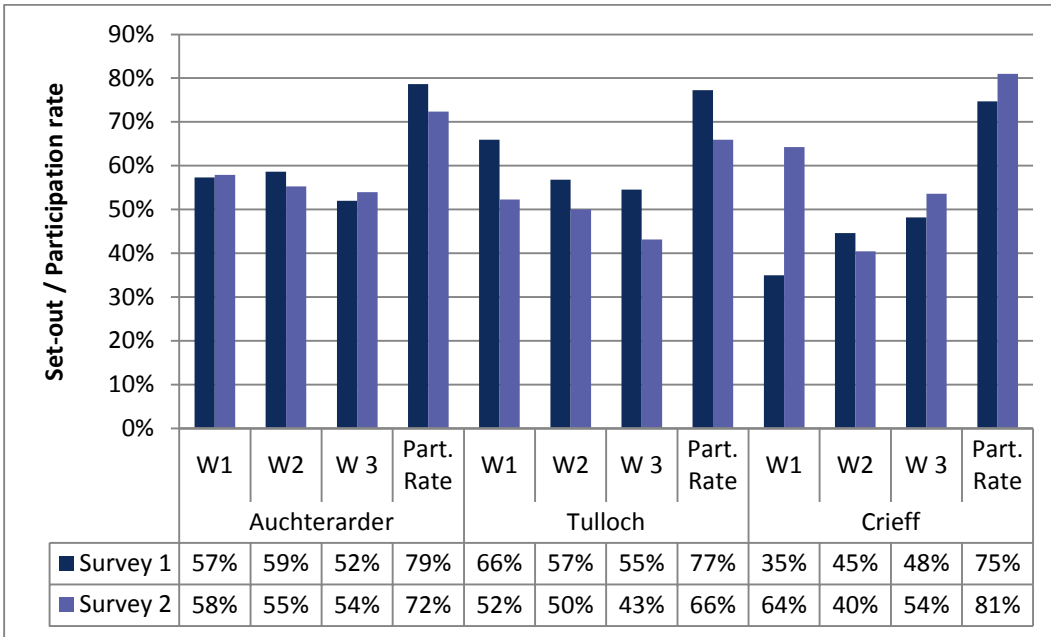
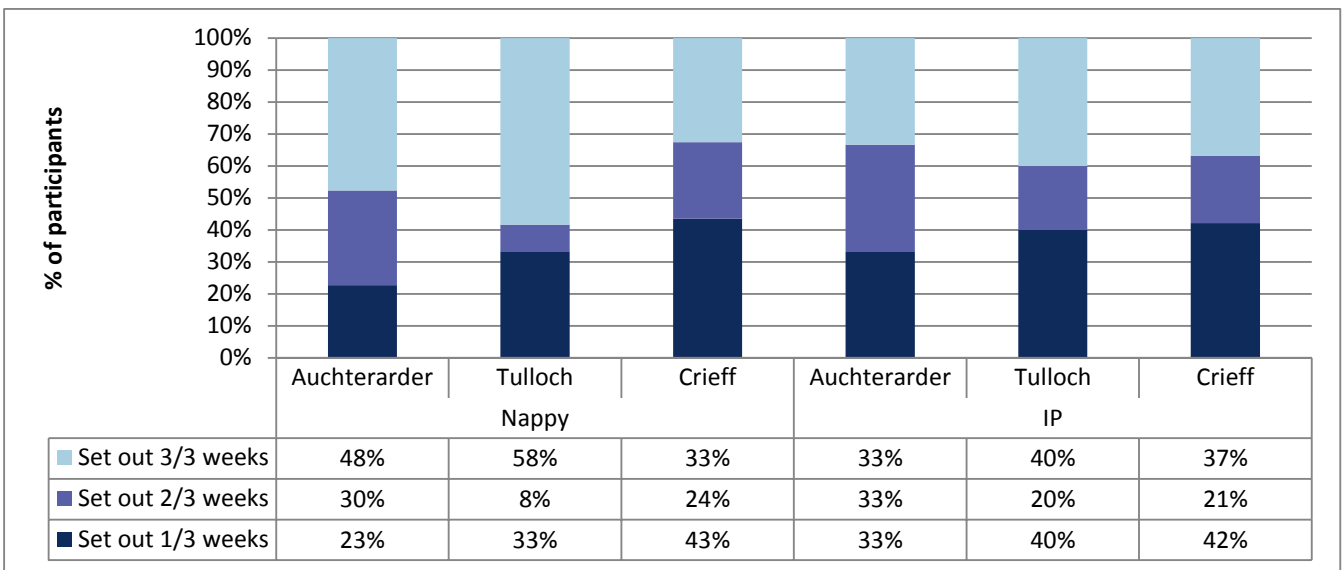


Figure 22 – Set-out characteristics of participating households in Survey 2



Capacity

In general, there appears to be sufficient capacity for users of the AHP scheme in Crieff.

Table 51 shows that in Survey 1 only one IP using household and four nappy using households presented an overflowing bin at any point throughout the monitoring period. Two of the nappy households had not presented any AHP waste in the previous two weeks. The other two nappy households contained two and three nappy users respectively. No overflowing bins were observed in Survey 2.

Table 51 – Bin fill levels of participants in the Crieff trial area

			Survey 1			Survey 2		
			Less than half full	More than half full	Over-flowing	Less than half full	More than half full	Full
Crieff	Nappy users	Week 1	14	4	0	8	14	13
		Week 2	5	18	0	6	14	2
		Week 3	8	12	4	8	17	5
	IP users	Week 1	7	3	0	7	6	3
		Week 2	8	4	0	3	6	0
		Week 3	8	3	1	4	6	2
	Users of both	Week 1	1	0	0	2	1	0
		Week 2	2	0	0	1	2	0
		Week 3	3	0	0	2	1	0
	TOTAL participant events		56	44	5	41	67	25
	% of participant events		53%	42%	5%	31%	50%	19%

Table 52 shows that the vast majority of service users require only one bag per week. On only four occasions throughout the six weeks of monitoring were more than 2 bags presented for collection.

Table 52 – Number of bags used by participants in the Auchterarder and Tulloch trial areas

			Survey 1			Survey 2		
			1 bag	2 bags	3 bags	1 bag	2 bags	3+ bags
Auchterarder	Nappy users	Week 1	28	2	0	32	1	1
		Week 2	29	4	0	30	2	1
		Week 3	27	0	0	31	0	1
	IP users	Week 1	10	0	0	7	0	0
		Week 2	8	0	0	7	0	0
		Week 3	9	0	0	7	0	0
	Users of both	Week 1	3	0	0	3	0	0
		Week 2	3	0	0	2	0	0
		Week 3	3	0	0	1	1	0
	TOTAL participant events		120	6	0	120	4	3
	% of participant events		95%	5%	0%	94%	3%	2%
Tulloch	Nappy users	Week 1	22	3	0	17	2	0
		Week 2	18	2	0	19	0	0
		Week 3	20	0	1	15	1	0
	IP users	Week 1	3	0	0	4	0	0
		Week 2	5	0	0	3	0	0
		Week 3	2	0	0	3	0	0
	Users of both	Week 1	0	0	0	0	0	0
		Week 2	0	0	0	0	0	0
		Week 3	0	0	0	0	0	0
	TOTAL participant events		70	5	1	61	3	0
	% of participant events		92%	7%	1%	95%	5%	0%

Perth & Kinross

The estimated arisings per opted-in household in the Perth & Kinross trial was 3.34 kg/hh/wk (see section 0).

AHP waste was collected by two vehicles in Perth & Kinross: one vehicle for Tulloch and Auchterarder and one vehicle for Crieff. Due to the weighbridge protocol at Perth & Kinross whereby standard tare weights for Council vehicles is stored in the system the individual collection weights for each vehicle are thought to be unreliable (as fluctuations in on-board fuel and passengers can have a marked effect on observed net weight). As a result an aggregated figure for all three Perth & Kinross trials has been used in the capture calculations. This figure is derived when the Knowaste vehicle uplifts the AHP waste (weighed in and out). It should be noted that AHP waste is uplifted by the Knowaste vehicle one full week after it is collected from households and that this may have an effect on the weight of the collected material due to the evaporation process or on-site storage protocol.

Table 53 shows that in Survey 1 the average yield per household that set out AHP waste was 5.96 kg/‘setting out’ hh/wk and the average yield per opted-in household was 3.02 kg/hh/wk. Over the three week monitoring period the capture rate was around 91%. The average yield per participating household (i.e. a household that participated at any point over the three weeks) works out at around 4.00 kg/‘participating’ hh/wk.

Table 53 also shows that in Survey 2 was relatively consistent with Survey 1 whereby the average yield per household that set out AHP waste was 5.86 kg/‘setting out’ hh/wk and the average yield per opted-in household was 3.10 kg/hh/wk. Over the three week monitoring period the capture rate was around 93%. The average yield per participating household (i.e. a household that participated at any point over the three weeks) works out at around 4.17 kg/‘participating’ hh/wk.

This average yields per participating household in both surveys were higher than the expected arisings per household from the WCA (3.34 kg/hh/wk). It is possible that the WCA underestimated potential arisings due to householders using HWRCs for excess waste; however, door-to-door surveys suggest that some households participate less than once every three weeks and so the participation rate may slightly underestimate the true participation – this would account for a higher than expected yield amongst participants. In general, the data suggests that if a household does participate in the scheme then all or nearly all of their AHP waste is recycled in the containers provided.

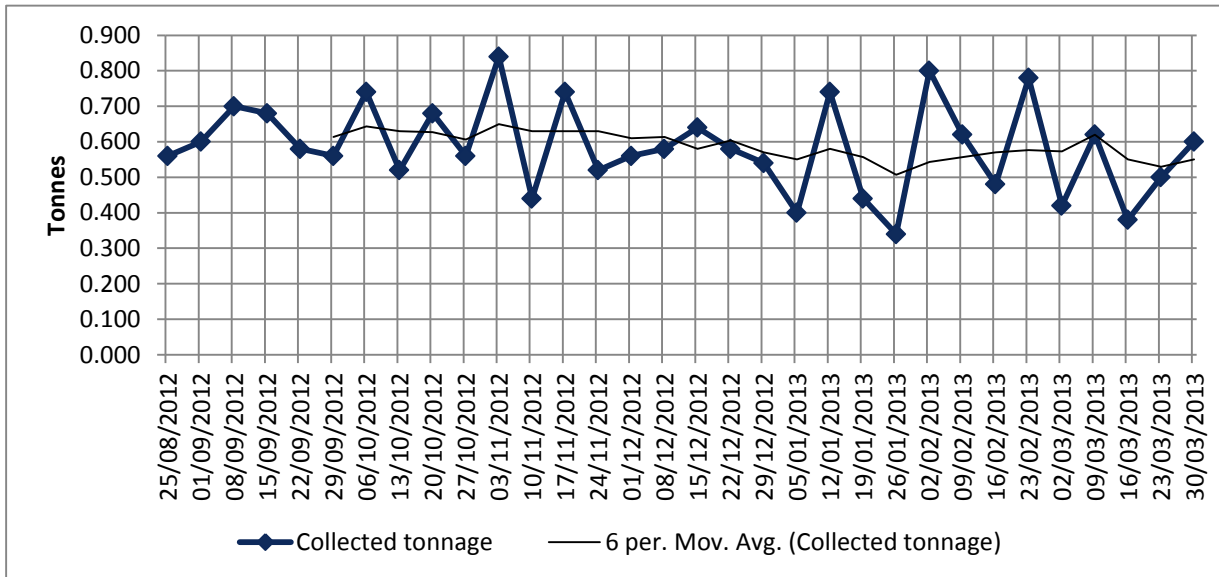
Table 53 – Average yield and capture rate in the P&K trial

		Kg collected	kg/setting out hh/wk	kg/hh/wk	Capture rate	Part. Rate	Capture rate within participants	kg/part. hh/wk
Survey 1	Week 1	600	5.88	2.94	88%	77%	120%	4.00
	Week 2	680	6.42	3.33	100%			
	Week 3	580	5.58	2.8	84%			
	Average	620	5.96	3.02	91%			
Survey 2	Week 1	800	6.61	3.92	117%	75%	125%	4.17
	Week 2	620	6.33	3.04	91%			
	Week 3	480	4.57	2.35	70%			
	Average	633	5.86	3.10	93%			
Whole trial		18,740	n/a	2.88	86%	n/a	n/a	n/a

Throughout the trial the average yield was 586 kg/week. This well exceeds the tonnage expected for the opted-in households at a participation rate of 76% (i.e. the average of the Survey 1 and Survey 2 participation rates). This supports the suggestion that all (or the vast majority) of AHP waste in participating households is recycled.

Figure 23 shows that collected tonnage is not consistent every week and that the festive period or severe weather (mid-January) can cause dips in weekly yield but that these tonnages are captured on the subsequent collection day. In general there appears to be a slight downwards trend in collected tonnages towards the end of the trial.

Figure 23 – Collected AHP tonnages throughout the trial



Fife

Summary of responses

The survey received 17 responses (only around 17% of the opted-in households):

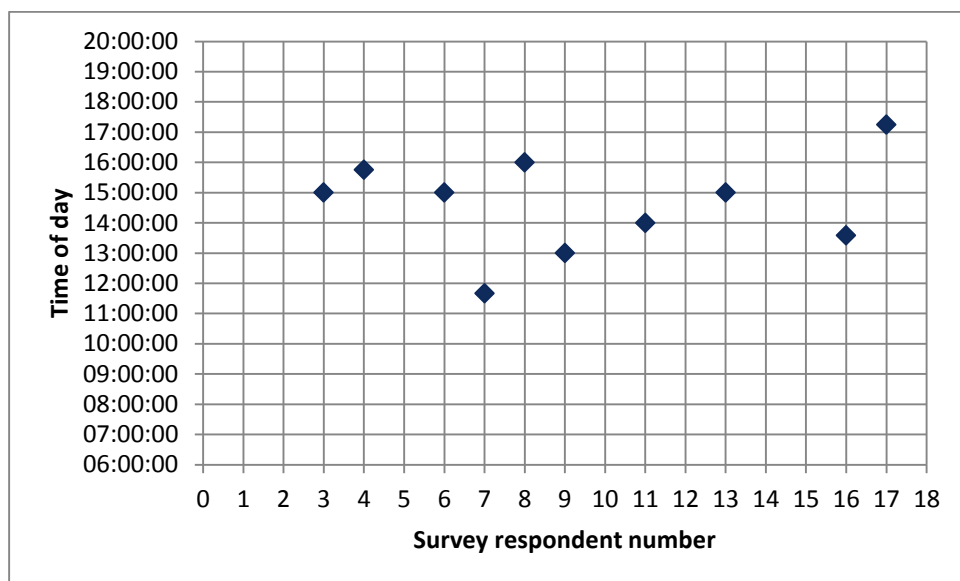
- 15 nappy using households
- 1 IP using household
- 1 household using both nappies and IPs.

All respondents stated that they use the service and that they recycle 100% of AHP waste using the service. 100% of respondents use their car to access the service. All respondents use the service between once a week and monthly (see Figure 25 below).

According to the survey responses the nappy using households use on average 1.36 AHP bags per week (between 0.33 bags per week and 5 bags per week). Cross comparison with subsequent answers in the survey suggest it is likely that some of these responses were made in error. It is possible that the actual average number of bags used per week by nappy using household is 1.03 bags (0.33 to 2 bags). Using the adjusted figures, we can say that an average of 0.70 AHP bags are used per nappy user per week (as opposed to 0.93 bags per user per week from the actual survey responses). On average 1 AHP bag per week is used per IP user.

The vast majority of respondents who stated a time of HWRC in their survey response stated that they used the site between 1pm and 4pm. Future monitoring regimes of similar schemes may wish to concentrate their monitoring efforts around this time for maximum response rates.

Figure 24 – Survey respondent time of HWRC visit



Capture and estimated participation

All respondents have stated that they use the service and that they recycle 100% of AHP waste using the service. If this is the case for all participants then the estimated figure for capture rate should give a rough indication of the participation rate.

Around 7.70 tonnes of AHP waste were collected throughout the whole trial. This is the equivalent of around 2.59 kg/hh/wk.

Using the estimated arisings from the Fife Council WCA, 8.96 tonnes of AHP were available from the beginning of the trial. This would suggest a capture rate of 86%. Assuming all participants recycle 100% of AHP waste using the service this would suggest a participation rate of around 86%.

This seems high compared to the participation rates in the kerbside AHP trials, however, it should be remembered that the opt-in rate was much lower than in the kerbside schemes and these figures may suggest that if a household opts-in to a HWRC scheme they are committed recyclers who will make the most of the service. As previously discussed, there was some suggestion that some AHP waste was being deposited in the HWRC stream at the time of the WCA and hence the WCA figure may have underestimated the available arisings. It may therefore be prudent to maintain a small degree of scepticism with regards to this performance.

Figure 26 shows the tonnage collected during the Fife trial. It should be noted that the tonnages correspond to uplifts from the Knowaste vehicle and as such are not strictly representative of AHP waste deposits in each week. It can be seen that the scheme performance was relatively consistent after the initial stages of the trial.

Figure 25 – Frequency of scheme use (all AHP users)

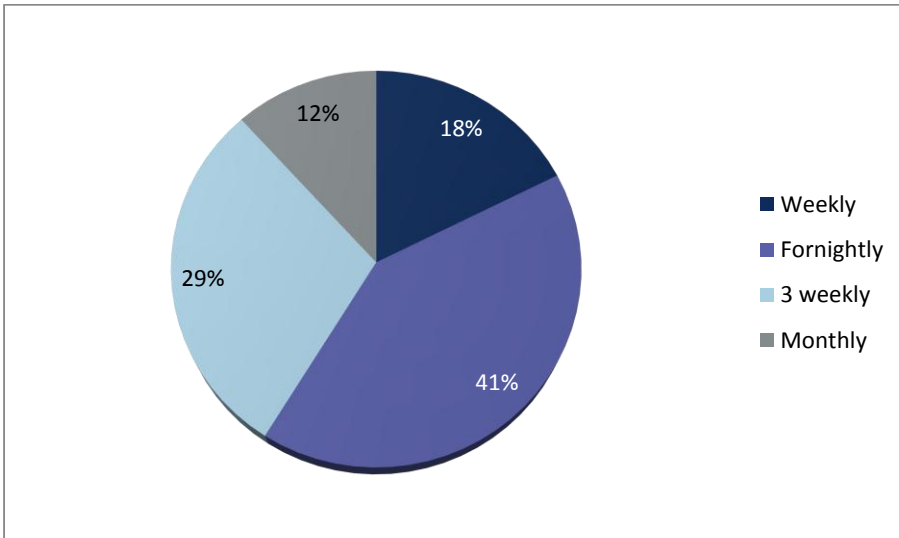
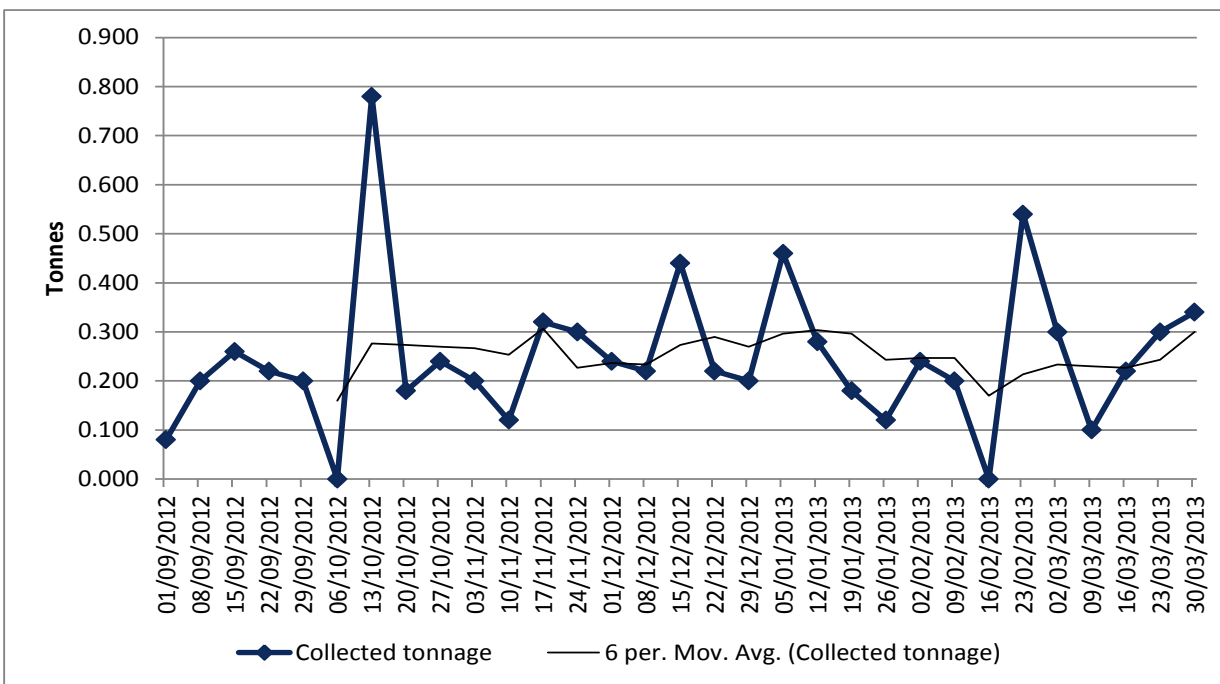


Table 54 – Use of bags amongst survey respondents

	No. of survey responses	Exact responses			Potential interpretation of responses		
		Average no. of bags per hh on survey day	Average bags per week per hh	Average bags per user per week	Average no. of bags per hh on survey day	Average bags per week per hh	Average bags per user per week
Nappy	15	1.80	1.36	0.93	2.13	1.03	0.70
IP	1	3	1	1	3	1	1
Both	1	1	1	0.5	1	1	0.5

Figure 26 – Tonnage collected in the Fife trial



North Lanarkshire

Summary of responses

The survey did not receive any responses. The only insight into scheme use is therefore from the post-trial quantitative door-to-door surveys.

Capture and estimated participation

It is understood that initial participation may have been hindered by issues with container capacity and that latter uplifts were heavily contaminated with building materials.

Weighbridge readings suggest that 4.28 tonnes of AHP waste was collected in the trial – this is the equivalent of 3.88 kg/hh/wk.

Using the estimated arisings for North Lanarkshire Council WCA (derived from the Stirling sample – see section 0), this corresponds to a capture rate of 85%. Assuming all participants recycle 100% of AHP waste using the service this would suggest a participation rate of around 85%.

This seems high compared to the participation rates in the kerbside AHP trials, however, it should be taken into account that uptake in the North Lanarkshire Council trial area was very low. The data therefore suggest that if an household opts-in to the HWRC scheme they are committed recyclers who will make the most of the service.

Composition

On 21st January 2013 Knowaste operatives conducted a waste analysis on a 200kg representative sample of the aggregated weekly collected load (see Table 55).

Table 55 – AHP waste sample

	Auchterarder	Tulloch	Crieff	Fife	Stirling	Total
	Blue bags	Blue with yellow bags	Loose yellow	Red bags	Loose	
% of sample	33%	12%	21%	13%	21%	100%
Bags¹⁸	24	9	36	8	n/a	
Weight (kg)	66	24	42	26	42	200

Table 56 – Composition of AHP sample

Product	Auchterarder	Tulloch	Crieff	Fife	Stirling	Total
	Blue bags	Yellow/Blue	Loose yellow	Red bags	Loose	
Nappies	93.8%	75.4%	86.9%	90.8%	86.2%	88.2%
Incontinence Products	0.0%	0.0%	3.1%	1.5%	1.4%	1.2%
Feminine Hygiene Products	3.3%	3.8%	1.7%	0.0%	2.9%	2.5%
Wipes/cotton buds/cotton wool	1.1%	12.5%	3.6%	3.5%	5.2%	4.2%
Disposable gloves/aprons	1.1%	0.0%	2.4%	4.2%	2.6%	2.0%
Feeding tubes/bags	0.8%	8.3%	2.4%	0.0%	1.7%	2.1%
Average weight per bag (kg)	2.75	2.67	1.17	3.25	n/a	
Syringes	2	3	6	4	0	

¹⁸ Yellow bags are smaller than blue bags.

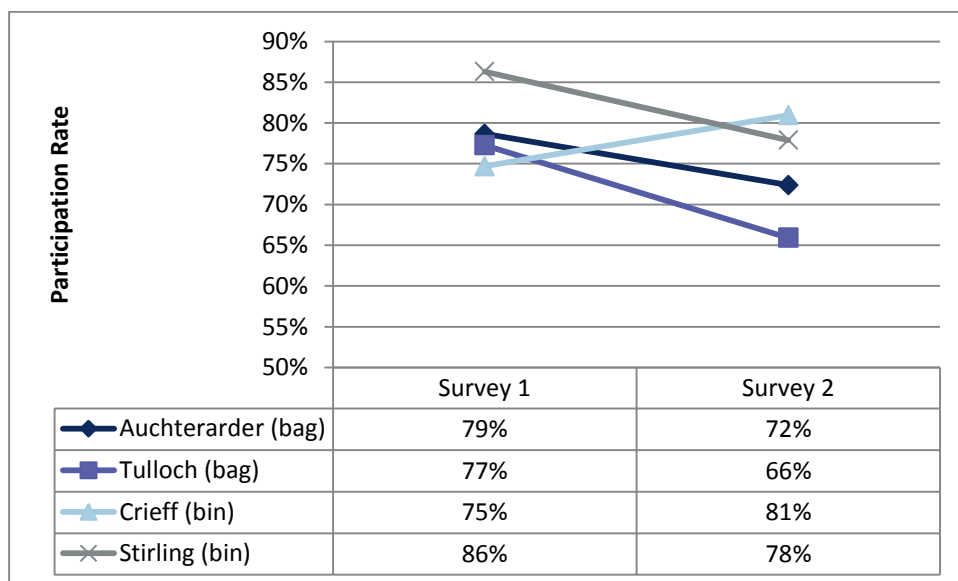
Table 56 shows that nappies make up the vast majority of collected AHP waste. The average weight of the Perth & Kinross blue bag kerbside schemes were comparable; the average weight of red bags in the Fife bring scheme was slightly higher.

Conclusions

Performance - kerbside schemes

- Participation rates started high (between 75% and 86%) but reduced slightly for the second participation survey (see Figure 27). This is likely to have been caused, in part, by severe weather conditions in the Stirling area during Survey 2; however, as monitoring was delayed by the severe weather in Perth & Kinross, this is not thought to be a factor for Auchterarder and Tulloch. Participation in Crieff actually increased between the two surveys. This is thought to be due, in part, to some households being missed on one or more survey days in Survey 1 but not identified in the data.
- Although there are occasional incidences to the contrary, there is insufficient evidence to confirm a definitive association between SIMD rank and participation in the kerbside AHP collection service. Where a potential association has been identified it is not necessarily the case that higher deprivation is linked with low participation (e.g. Crieff IP users where participation was lower in the less deprived data zones).
- The data suggests that for participating households all (or the vast majority of) AHP waste is recycled in the containers provided. In Stirling expected tonnage capture figures were not always met and there is some suggestion during this period that some AHP waste was leaving the recycled stream amongst scheme participants. The reduction in tonnage may be attributable to a number of factors:
 - some AHP waste leaves the trial area during holiday periods
 - severe weather prevents participants from presenting AHP waste for collection
 - the population contains some secondary AHP households i.e. opted-in households that are not primary users of AHPs (e.g. extended family)
 - real nappy use may be higher than expected or fluctuate throughout the year
 - AHP users may occasionally deposit AHP waste at households which do not receive the service
 - some nappy users from the start of the trial may no longer use nappies or use them less.
- Many participants do not use the service every week, however, AHP waste is not thought to leave the recycled stream as a result of this, rather all domestic AHP waste arisings are deposited in the AHP containers which are then presented the following week.

Figure 27 – Participation rates in the kerbside schemes



Performance - general

- The WCA arisings estimate for Stirling appears to be more accurate than the estimate for Perth & Kinross. This may be attributable in part to a number of households in the Perth & Kinross sample which used HWRCs for excess residual waste – some AHP waste is therefore thought to have been diverted from the residual waste stream and was not included in the average household arisings estimate.
- Survey responses from both the kerbside and HWRC scheme suggest that some households may retain AHP waste for over three before recycling. This would suggest that, the unexpectedly large yields may be more attributable to underestimated participation rates rather than underestimated AHP arisings and that future AHP monitoring should be conducted over at least a four week cycle.

Lessons learned

- Carrying out a Waste Compositional Analysis:
 - Clear instructions should be given on individual actions for waste collection teams
 - Where partnership working is required a team leader should be appointed
 - Where possible, data should be recorded electronically in order to avoid data loss and transcription error
 - Waste samples should take into account HWRC usage for excess residual and AHP waste
- Weighbridge protocol – a standard weighbridge protocol should be developed whereby AHP collection vehicles are both weighed in and weighed out either side of dropping off or collecting the AHP waste at depot/transfer stations. This avoids data error introduced by tare weights permanently recorded in the weighbridge system.
- Participation surveys should (in addition to guidelines stated by WRAP¹⁹:

¹⁹ <http://www.wrap.org.uk/sites/files/wrap/WRAP%20ME%20Guidance%20-%20CHP%205.pdf>

- aim to avoid periods of severe weather
 - be conducted for more than three consecutive collection days
- Monitoring and evaluation of HWRC schemes may require additional resources to engage directly with service users e.g. door-to-door surveys
- On-going fill level and contamination monitoring at HWRC schemes should be scheduled at regular intervals.

Appendix 3 – Communication Materials for AHP Trials

Stirling Council

Introductory Leaflet (A5)

What happens to the products I recycle?

Waste is collected



Processed by steam heating to sterilise and then sorted into cellulose fibres and plastic pellets



Products like these are created from the recycled materials




They are put in an autoclave (like a big steam cooker) and heated to 125°C for 20 minutes which sterilises all of the materials. During this process the super absorbent polymers in these types of products (which retain all of the moisture) are deactivated which allows the products to be processed into cellulose fibres and plastic pellets.

This NEW recycling service means that once these materials have been collected and processed they can be recycled into new and useful products.

- The cellulose fibres can be recycled into cardboard.
- The plastic pellets can be recycled to produce a range of plastic products such as benches, garden furniture, decking, bollards and railway sleepers.

Top tip You can ALSO include all types of female hygiene products in your NEW recycling bin. If you need any further help and advice please call Stirling Council on 0845 277 7000



Don't let a good thing go to waste

Stirling Council Waste Services
Loose Achnaive Waste Management Facility
Stirling
FK7 7JU




NEW Recycling service

for disposable nappies and adult incontinence products





Your complete guide to this NEW service.



How to recycle Nappies and Incontinence Products with your New recycling service

Zero Waste Scotland are running trials across Scotland for a new nappies and incontinence products recycling service and Stirling Council is one of the trial partners. Rather than sending these to landfill, there is a new technology which allows them to be recycled into useful new products. These trials will last for a six month period.

What are the benefits of recycling these products?

It can take up to 500 years for a disposable nappy to decompose, leaving a legacy to your children's grandchildren

They can be recycled into useful products

A city the size of Stirling uses 934,254 nappies per year (187 tonnes of waste)

It's better for the environment

What can be recycled using your new recycling service?

YES Disposable Nappies

- ✓ all types and sizes of disposable nappies and liners
- ✓ training pants and pull ups
- ✓ swim pants
- ✓ nappy socks
- ✓ disposable bed liners and disposable changing mats
- ✓ wet wipes, cotton wool and cotton buds

YES Incontinence Products


- ✓ all types and sizes of pads, pants and pouches
- ✓ disposable chair pads and disposable bed pads and liners
- ✓ disposable gloves and disposable aprons
- ✓ wet wipes and cotton wool
- ✓ associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes

NO X Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass

MUST NOT be used for any other household waste or it will NOT BE EMPTIED.

Step 1 If you require this service, please call Stirling Council on 0845 277 7000 within 2 weeks of receiving this leaflet.

Step 2 Your new bin for nappies and/or incontinence product recycling will then be delivered to your home. You can start using this service as soon as you receive your NEW bin.



Step 3 ONLY put the products listed in this leaflet in your NEW bin.

Step 4 Place your NEW bin, with the lid closed, at your normal wheeled bin collection point by 7.00am EVERY WEEK on your normal wheeled bin collection day.

Step 5 We will then collect your NEW bin every week.

Top tip Please remember this NEW recycling bin CAN ONLY BE USED for Disposable Nappies and Incontinence Products.

Please call Stirling Council on 0845 277 7000 to register

Bin Decal (A5)

recycle for Stirling

What you can recycle using this **NEW** bin



<p>YES ✓ Disposable Nappies</p> <ul style="list-style-type: none">✓ all types and sizes of disposable nappies✓ training pants and pull ups✓ swim pants✓ nappy sacks✓ disposable bed liners and disposable changing mats✓ wet wipes, cotton wool and cotton buds	<p>YES ✓ Incontinence Products</p> <ul style="list-style-type: none">✓ all types and sizes of pads, pants and pouches✓ disposable chair pads and disposable bed pads and liners✓ disposable gloves and disposable aprons✓ wet wipes, cotton wool and cotton buds✓ associated products such as: feeding tubes, feeding bags, connecting tubes and feeding syringes
---	--

NO ✗ Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.

This bin MUST NOT be used for any other household waste or this bin will NOT be emptied and the service will be withdrawn.

 **0845 277 7000** **Don't let a good thing go to waste**

Poster (A4)

recycle for Stirling



NEW

Recycling service

for disposable nappies and adult incontinence products



 To register for this trial service please call Stirling Council on **0845 277 7000**

Reminder Postcard (A6)

 recycle for Stirling

What you can recycle using your **NEW** recycling service

 **Don't let a good thing go to waste**

0845 277 7000

<p>YES ✓</p> <p>Disposable Nappies</p> <ul style="list-style-type: none">✓ all types and sizes of disposable nappies✓ training pants and pull ups✓ swim pants✓ nappy sacks✓ disposable bed liners and disposable changing mats✓ wet wipes, cotton wool and cotton buds	<p>YES ✓</p> <p>Incontinence Products</p> <ul style="list-style-type: none">✓ all types and sizes of pads, pants and pouches✓ disposable chair pads and disposable bed pads and liners✓ disposable gloves and disposable aprons✓ wet wipes, cotton wool and cotton buds✓ associated products such as: feeding tubes, feeding bags, connecting tubes and feeding syringes
<p>NO ✗ Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.</p>	
<p>This bin MUST NOT be used for any other household waste or this bin will NOT be emptied and the service will be withdrawn.</p>	

What happens to the products I recycle?

Waste is collected



Processed by steam heating to sterilise and then sorted into cellulose fibres and plastic pellets



Products like these are created from the recycled materials



They are put in an autoclave (like a big steam cooker) and heated to 125°C for 20 minutes which sterilises all of the materials. During this process the super absorbent polymers in these types of products (which retain all of the moisture) are deactivated which allows the products to be processed into cellulose fibres and plastic pellets.

This NEW recycling service means that once these materials have been collected and processed they can be recycled into new and useful products.

- The cellulose fibres can be recycled into cardboard.
- The plastic pellets can be recycled to produce a range of plastic products such as benches, garden furniture, decking, bollards and railway sleepers.

Top tip You can ALSO include all types of female hygiene products in your NEW recycling bin. If you need any further help and advice please call Perth & Kinross Council on 01738 476476



recycle for Perth & Kinross

NEW Recycling service

for disposable nappies and adult incontinence products





Your complete guide to this NEW collection and recycling service.

FREE
bin and recycling sacks

How long will this trial scheme last?
This recycling service will last for six months and is due to finish in Winter 2012. You will be informed one month before the trial is due to finish.

What do I do with items not listed?
If you are not sure whether an item can be recycled using your NEW recycling service please call Perth & Kinross Council on 01738 476476 or email recycle@pkc.gov.uk

www.pkc.gov.uk/recycle

ZERO WASTE

The Environment Service
Perth & Kinross Council
Perth, Angus Road,
Perth, PH1 5QQ

recycle for Perth & Kinross

How to recycle Nappies and Incontinence Products with your **NEW** recycling service

Zero Waste Scotland are running trials across Scotland for a new nappies and incontinence products recycling service and Perth & Kinross Council is one of the trial partners. Rather than sending these items to landfill, there is a new technology which allows them to be recycled into useful new products. These trials will last for a six month period.

What are the benefits of recycling these products?

It can take up to 500 years for a disposable nappy to decompose, leaving a legacy to your children's grandchildren

They can be recycled into useful products

A city the size of Perth uses 1.24 million nappies per year (248 tonnes of waste)

It's better for the environment

What can be recycled using your new recycling service?

YES Disposable Nappies

- ✓ all types and sizes of disposable nappies and liners
- ✓ training pants and pull ups
- ✓ swim pants
- ✓ nappy sacks
- ✓ disposable bed liners and disposable changing mats
- ✓ wet wipes, cotton wool and cotton buds

YES Incontinence Products

- ✓ all types and sizes of pads, pants and pouches
- ✓ disposable chair pads and disposable bed pads and liners
- ✓ disposable gloves and disposable aprons
- ✓ wet wipes, cotton wool and cotton buds
- ✓ associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes

NOX Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.

MUST NOT be used for any other household waste.

Step 1



Please call Perth & Kinross Council on 01738 476476 by the beginning of July to receive this new service.

Step 2

Your new recycling bin will be delivered to your home with a FREE 6 month supply of recycling sacks.



Free

You can start using this service as soon as you receive your NEW recycling bin and recycling sacks.

You can store this bin either inside or outside your home.

Step 3



Line your container with a blue recycling sack and place the used products into the sack.

Step 4



Once the blue recycling sacks are full please tie securely.

Step 5



Place the recycling sacks at your normal bin collection point by 7.30am every Saturday. We will collect your NEW recycling sacks every week.

To receive your FREE recycling service please call 01738 476476 or email recycle@pkc.gov.uk

Top tip Please remember that Real Nappies can also be used. For further information please visit www.pkcm.org.uk

Please call Perth & Kinross Council on 01738 476476 or email recycle@pkc.gov.uk to register

Crieff Introductory Leaflet (A5)

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**The Environmental Services
Perth & Kinross Council
Perth
PH1 3SD**

recycle for Perth & Kinross

NEW Recycling service

for disposable nappies and adult incontinence products

How long will this trial scheme last?
The recycling service will last for six months and is due to finish in Winter 2012. You will be informed one month before the trial is due to finish.

What do I do with items not listed?
If you are not sure whether an item can be recycled using your NEW recycling service please call Perth & Kinross Council on 01738 476476 or e-mail recycle@pkk.gov.uk

www.pkk.gov.uk/recycle



Your complete guide to this NEW collection and recycling service.

FREE Bin and recycling sacks

recycle for Perth & Kinross

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- ✓ disposable chair pads and disposable bed pads and liners
- ✓ disposable gloves and disposable aprons
- ✓ wet wipes, cotton wool and cotton buds
- ✓ associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes

NO X Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.

MUST NOT be used for any other household waste.

Step 1 Please call Perth & Kinross Council on 01738 476476 by the beginning of July to receive this new service.

Step 2 Your new recycling bin will be delivered to your home with a **FREE** 6 month supply of recycling sacks.

Step 3 Place your used products into your recycling sacks, tie securely and put in your NEW recycling bin.

Step 4 Place your recycling bin with the lid closed at your normal bin collection point by 7.30am every Saturday.

Step 5 We will empty your NEW recycling bin every week.

To receive your new recycling service please call 01738 476476 or email recycle@pkk.gov.uk

Top tip Please remember that Real Nappies can also be used. For further information please visit www.pkk.org.uk

Please call Perth & Kinross Council on 01738 476476 or email recycle@pkk.gov.uk to register

Tulloch Introductory Leaflet (A5)

What happens to the products I recycle?

Waste is collected



Processed by steam heating to sterilise and then sorted into cellulose fibres and plastic pellets



Products like these are created from the recycled materials



They are put in an autoclave (like a big steam cooker) and heated to 125°C for 20 minutes which sterilises all of the materials. During this process the super absorbent polymers in these types of products (which retain all of the moisture) are deactivated which allows the products to be processed into cellulose fibres and plastic pellets.

This NEW recycling service means that once these materials have been collected and processed they can be recycled into new and useful products.

- The cellulose fibres can be recycled into cardboard.
- The plastic pellets can be recycled to produce a range of plastic products such as benches, garden furniture, decking, bollards and railway sleepers.

Top tip You can ALSO include all types of female hygiene products in your NEW recycling bin. If you need any further help and advice please call Perth & Kinross Council on 01738 476476




NEW Recycling service

for disposable nappies and adult incontinence products





Your complete guide to this NEW collection and recycling service.

FREE recycling sacks

How long will this trial scheme last?
The recycling service will last for six months and is due to finish in Winter 2012. You will be informed one month before the trial is due to finish.

What do I do with items not listed?
If you are not sure whether an item can be recycled using your NEW recycling service please call Perth & Kinross Council on 01738 476476 or email recycle@pkc.gov.uk

www.pkc.gov.uk/recycle

How to recycle Nappies and Incontinence Products with your NEW recycling service

Zero Waste Scotland are running trials across Scotland for a new nappies and incontinence products recycling service and Perth & Kinross Council is one of the trial partners. Rather than sending these items to landfill, there is a new technology which allows them to be recycled into useful new products. These trials will last for a six month period.

Step 1 

Please call Perth & Kinross Council on 01738 476476 by the beginning of July to receive this new service.

Step 2 

You can start using this service as soon as you receive your recycling sacks. **Free**

Step 3 

Place your used products into a small yellow and black recycling sack, and tie securely.

Step 4 

Then place the tied small yellow and black sack into the larger blue recycling sack, and again tie this securely.

Step 5 

Place your blue recycling sack/s at your normal bin collection point by 7.30 am every Saturday. We will collect your NEW recycling sacks every week.

What are the benefits of recycling these products?

It can take up to 500 years for a disposable nappy to decompose, leaving a legacy to your children's grandchildren.

They can be recycled into useful products

A city the size of Perth uses 1.24 million nappies per year (248 tonnes of waste)

It's better for the environment

What can be recycled using your new recycling service?

YES Disposable Nappies

- ✓ all types and sizes of disposable nappies and liners
- ✓ training pants and pull ups
- ✓ swim pants
- ✓ nappy sacks
- ✓ disposable bed liners and disposable changing mats
- ✓ wet wipes, cotton wool and cotton buds

YES Incontinence Products

- ✓ all types and sizes of pads, pants and pouches
- ✓ disposable chair pads and disposable bed pads and liners
- ✓ disposable gloves and disposable aprons
- ✓ wet wipes, cotton wool and cotton buds
- ✓ associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes

NO X Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.

MUST NOT be used for any other household waste.

Please call Perth & Kinross Council on 01738 476476 or email recycle@pkc.gov.uk to register

To receive your new recycling service please call 01738 476476 or email recycle@pkc.gov.uk

Top tip Please remember that Real Nappies can also be used. For further information please visit www.pkcrr.org.uk

Bin Decal (A5) - Auchterarder and Crieff

 **recycle for Perth & Kinross**

What you can recycle using your NEW recycling service

YES ✓ Disposable Nappies

- ✓ all types and sizes of disposable nappies
- ✓ training pants and pull ups
- ✓ swim pants
- ✓ nappy sacks
- ✓ disposable bed liners and disposable changing mats
- ✓ wet wipes, cotton wool and cotton buds

YES ✓ Incontinence Products

- ✓ all types and sizes of pads, pants and pouches
- ✓ disposable chair pads and disposable bed pads and liners
- ✓ disposable gloves and disposable aprons
- ✓ wet wipes, cotton wool and cotton buds
- ✓ associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes

NO X Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.
MUST NOT be used for any other household waste.



www.pkc.gov.uk/recycle

01738 476476

Poster (A4)

 **recycle for Perth & Kinross**

NEW

Recycling service

for disposable nappies and adult incontinence products





To register for this trial service please call Perth & Kinross Council on **01738 476476**

Reminder Postcard (A6)

 recycle for Perth & Kinross

What you can recycle using your **NEW** recycling service

 www.pkc.gov.uk/recycle 01738 476476

<p>YES ✓</p> <p>Disposable Nappies</p> <ul style="list-style-type: none">✓ all types and sizes of disposable nappies✓ training pants and pull ups✓ swim pants✓ nappy sacks✓ disposable bed liners and disposable changing mats✓ wet wipes, cotton wool and cotton buds	<p>YES ✓</p> <p>Incontinence Products</p> <ul style="list-style-type: none">✓ all types and sizes of pads, pants and pouches✓ disposable chair pads and disposable bed pads and liners✓ disposable gloves and disposable aprons✓ wet wipes, cotton wool and cotton buds✓ associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes
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NO ✗ Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.
MUST NOT be used for any other household waste.

What happens to the products I recycle?

Waste is collected

Processed by steam heating to sterilise and then sorted into cellulose fibres and plastic pellets

Products like these are created from the recycled materials

They are put in an autoclave (like a big steam cooker) and heated to 125°C for 20 minutes which sterilises all of the materials. During this process the super absorbent polymers in these types of products (which retain all of the moisture) are deactivated which allows the products to be processed into cellulose fibres and plastic pellets.

This **NEW** recycling service means that once these materials have been collected and processed they can be recycled into new and useful products.

- The cellulose fibres can be recycled into cardboard.
- The plastic pellets can be recycled to produce a range of plastic products such as benches, garden furniture, decking, bollards and railway sleepers.

Top tip You can **ALSO** include all types of female hygiene products in your NEW blue recycling sacks. If you need any further help and advice please call North Lanarkshire Council on 01698 403110

Don't let a good thing go to waste

ZERO WASTE
FOR THE FUTURE

North Lanarkshire Council
Household Waste Recycling Centre
100 Eastpark Road
COXSDENFIELD
GLASGOW G12 8JL

01698 403110
4-5PM
9-5PM

recycle for Scotland

NEW Recycling service
for disposable nappies and adult incontinence products

How long will this trial scheme last?
The recycling service will last for six months and is due to finish in Winter 2012. You will be informed one month before the trial is due to finish.

What can I do with items not listed?
If you are not sure whether an item can be recycled using your NEW recycling service please call North Lanarkshire Council on 01698 403110

Your complete guide to this **NEW** service at Stobcross Household Waste Recycling Centre

FREE recycling sacks

recycle for Scotland

How to recycle Nappies and Incontinence Products with your **New** recycling service

Zero Waste Scotland are running trials across Scotland for a new nappies and incontinence products recycling service and North Lanarkshire Council is one of the trial partners. Rather than sending these to landfill, there is a new technology which allows them to be recycled into useful new products. These trials will last for a six month period.

Your first 5 recycling sacks will be delivered to your home.

Step 1 Please call North Lanarkshire Council on 01698 403110 within a couple of weeks to request this new service.

Step 2 Further free recycling sacks (up to 5 at a time) will be supplied by a Recycling Attendant on an exchange basis at the Stobcross Recycling Centre. **Free**

Step 3 Place the used products into your recycling sack and tie securely.

Step 4 Once the recycling sacks are full take them to the Stobcross Recycling Centre.

Step 5 Further free recycling sacks (up to 5 at a time) will be supplied by a Recycling Attendant on an exchange basis at the Stobcross Recycling Centre. **Free**

To receive your FREE recycling sacks please call North Lanarkshire Council on 01698 403110.

What are the benefits of recycling these products?

- It can take up to 500 years for a disposable nappy to decompose, leaving a legacy to your children's grandchildren
- They can be recycled into useful products
- A town the size of Coatbridge uses over 1 million nappies per year (235 tonnes of waste)
- It's better for the environment

What can be recycled using your new recycling service?

YES Disposable Nappies

- all types and sizes of disposable nappies and liners
- training pants and pull ups
- swim pants
- nappy sacks
- disposable bed liners and disposable changing mats
- wet wipes, cotton wool and cotton buds

YES Incontinence Products

- all types and sizes of pads, pants and pouches
- disposable chair pads and disposable bed pads and liners
- disposable gloves and disposable aprons
- wet wipes, cotton wool and cotton buds
- associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes

NO X Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass

MUST NOT be used for any other household waste.

Please call North Lanarkshire Council on 01698 403110 to register

Top tip Please remember that **ONLY** the Stobcross Household Waste and Recycling Centre will accept Nappies and Incontinence Products for recycling.

HWRC Container Decal

 **What you can recycle using your NEW recycling service**

Don't let a good thing go to waste





01698 403110

YES ✓ Disposable Nappies

- ✓ all types and sizes of disposable nappies and liners
- ✓ training pants and pull ups
- ✓ swim pants
- ✓ nappy sacks
- ✓ disposable bed liners and disposable changing mats
- ✓ wet wipes, cotton wool and cotton buds

YES ✓ Incontinence Products

- ✓ all types and sizes of pads, pants and pouches
- ✓ disposable chair pads and disposable bed pads and liners
- ✓ disposable gloves and disposable aprons
- ✓ wet wipes, cotton wool and cotton buds
- ✓ associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes

NO ✗ Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.

MUST NOT be used for any other household waste.

Poster (A4)

NEW Recycling service

for disposable nappies and adult incontinence products







To register for this trial service please call North Lanarkshire Council on 01698 403110

Reminder Postcard (A6)



recycle for Scotland



**What you can
recycle using
your **NEW**
recycling service**

Don't let a good thing go to waste



01698 403110

*“recycle
for good”*



YES ✓ Disposable Nappies

- ✓ all types and sizes of disposable nappies and liners
- ✓ training pants and pull ups
- ✓ swim pants
- ✓ nappy sacks
- ✓ disposable bed liners and disposable changing mats
- ✓ wet wipes, cotton wool and cotton buds

YES ✓ Incontinence Products

- ✓ all types and sizes of pads, pants and pouches
- ✓ disposable chair pads and disposable bed pads and liners
- ✓ disposable gloves and disposable aprons
- ✓ wet wipes, cotton wool and cotton buds
- ✓ associated products such as: feeding tubes and feeding bags, connecting tubes, feeding syringes

NO ✗ Needles and syringes, plaster casts, plasters and dressings, blankets and clothing, metal cans and aerosols, glass.

MUST NOT be used for any other household waste.

What happens to the products I recycle?

Waste is collected



Processed by steam heating to sterilise and then sorted into cellulose fibres and plastic pellets



Products like these are created from the recycled materials



The products are put in an autoclave (like a big steam cooker), sterilised and processed into CELLULOSE FIBRES and PLASTIC PELLETS.

This **NEW** recycling service means that these materials can be recycled into new and useful products.

- The cellulose fibres can be recycled into cardboard.
- The plastic pellets can be recycled to produce a range of plastic products such as benches, garden furniture, decking, ballards and railway sleepers.

Top tip You can ALSO put all types of female hygiene products in your NEW red recycling sacks. If you need any further help and advice please visit www.fifedirect.org.uk/AHP/trials or call 08451 55 00 22

Don't let a good thing go to waste



recycle for Fife

NEW Recycling service

for disposable nappies and adult incontinence products



Your complete guide to this **NEW** service at Dunfermline Recycling Centre

FREE recycling sacks

When you send your used nappies or incontinence products to the recycling service, you are helping to reduce the amount of waste going to landfill. This is a great way to help protect the environment and reduce the amount of greenhouse gas emissions.

The recycling service is available to all Fife residents who are registered for the service. You can find out more about the service by visiting www.fifedirect.org.uk/AHP/trials or calling 08451 55 00 22.

How to recycle Nappies and Incontinence Products with your **New** recycling service

Zero Waste Scotland are running trials across Scotland for a new nappies and incontinence products recycling service and Fife Council is one of the trial partners. Rather than sending these to landfill, there is a new technology which allows them to be recycled into useful new products. These trials will last for a six month period.



Step 1 Contact Us. To receive this service you need to register within the next 5 weeks at www.fifedirect.org.uk/AHP/trials or call 08451 55 00 22.

Step 2 Your first 5 recycling sacks will be delivered to your home. You can start recycling as soon as you receive these sacks.

Further free recycling sacks (up to 5 per week) will be supplied on an exchange basis by a Recycling Attendant at the Dunfermline Recycling Centre.

FREE recycling sacks up to 5 per week

UP TO 5 SACKS PER WEEK

Step 3 Place the used products into this bag into your recycling sack. Once the recycling sack is nearly full to capacity.

Step 4 Take the recycling sacks to the Dunfermline Recycling Centre at Wallowood, past Queens Acre High School.

Step 5 A Recycling Attendant will advise you where to dispose of the sacks and provide you with further free recycling sacks (up to 5 sacks per week).

Free

What are the benefits of recycling these products?

- When sent to landfill disposable nappies break down slowly and release methane, a powerful greenhouse gas.
- They can be recycled into useful products.
- A town the size of Dunfermline uses over 1 million nappies per year (224 tonnes of waste).
- It's better for the environment.

What can be recycled using your new recycling service?

YES ✓ Disposable Nappies

- ✓ all types and sizes of disposable nappies and liners
- ✓ training pants and pull ups
- ✓ swim pants
- ✓ nappy sacks
- ✓ disposable bed liners and disposable changing mats
- ✓ wet wipes, cotton wool and cotton buds

YES ✓ Incontinence Products

- ✓ all types and sizes of pads, pants and pouches
- ✓ disposable chair pads, disposable bed pads and liners
- ✓ disposable gloves and disposable aprons
- ✓ wet wipes, cotton wool and cotton buds
- ✓ associated products such as: feeding tubes and bags, connecting tubes, feeding syringes

NO ✗ Needles and syringes, plaster casts, dressings and plasters, metal cans and aerosols, glass.

MUST NOT be used for any other household waste.

Please register online at www.fifedirect.org.uk/AHP/trials or call 08451 55 00 22

Top tip Please remember that ONLY the Dunfermline Recycling Centre will accept Nappies and Incontinence Products for recycling.

HWRC Container Decal

recycle for Fife Fife Council

What you can **recycle** using your **NEW** recycling service

<p>YES ✓ Disposable Nappies</p> <ul style="list-style-type: none"> ✓ all types and sizes of disposable nappies and liners ✓ training pants and pull ups ✓ swim pants ✓ nappy sacks ✓ disposable bed liners and disposable changing mats ✓ wet wipes, cotton wool and cotton buds 	<p>YES ✓ Incontinence Products</p> <ul style="list-style-type: none"> ✓ all types and sizes of pads, pants and pouches ✓ disposable chair pads, disposable bed pads and liners ✓ disposable gloves and disposable aprons ✓ wet wipes, cotton wool and cotton buds ✓ associated products such as: feeding tubes and bags, connecting tubes, feeding syringes
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NO ✗ Needles and syringes, plaster casts, dressings and plasters, metal cans and aerosols, glass.

MUST NOT be used for any other household waste.

Red Sacks only accepted

Don't let a good thing go to waste

www.fifedirect.org.uk/AHPtrials
 waste.aware@fife.gov.uk 08451 55 00 22



Poster (A4)

recycle for Fife Fife Council

NEW Recycling service

for disposable nappies and
adult incontinence products





To register for this trial service
please call Fife Council
on **08451 55 00 22**



Reminder Postcard (A6)

What you can recycle using your **NEW** recycling service

Your five step guide to your new recycling service

1. Place the used products into your recycling sacks.
2. Once the recycling sacks are nearly full, tie securely.
3. Take to Dunfermline Recycling Centre at Wellwood, past Queen Anne High School.
4. Place the recycling sacks into the appropriate container.
5. Collect further free recycling sacks (up to 5 per week) from a Recycling Centre Attendant.

 **Don't let a good thing go to waste**

www.fifedirect.org.uk/AHPtrials
✉ waste.aware@fife.gov.uk ☎ 08451 55 00 22

 YES ✓	Disposable Nappies	 YES ✓	Incontinence Products
<ul style="list-style-type: none">✓ all types and sizes of disposable nappies and liners✓ training pants and pull ups✓ swim pants✓ nappy sacks✓ disposable bed liners and disposable changing mats✓ wet wipes, cotton wool and cotton buds		<ul style="list-style-type: none">✓ all types and sizes of pads, pants and pouches✓ disposable chair pads, disposable bed pads and liners✓ disposable gloves and disposable aprons✓ wet wipes, cotton wool and cotton buds✓ associated products such as: feeding tubes and bags, connecting tubes, feeding syringes	
 NO ✗	Needles, syringes, plaster casts, dressings and plasters, metal cans and aerosols, glass. MUST NOT be used for any other household waste.		

Appendix 4 - Stirling Council Risk Hazard and Risk Assessment

AHP Collection Trial Logistics

Stirling Council

Hazard and Risk Assessment

June 2012

1 Hazard and risk assessment

1.1 Offensive/hygiene waste

For the process of the hazard and risk assessment the AHP has been treated as hygiene / offensive waste and not clinical waste.

Offensive/hygiene waste is defined by the Department of Health as waste that:

- may cause offence due to the presence of recognisable healthcare waste items or body fluids;
- does not meet the definition of an infectious waste;
- does not possess any hazardous properties; and
- is not identified by the producer, or holder, as needing disinfection, or any other treatment, to reduce the number of microorganisms present. ¹

Offensive/hygiene waste (previously known as sanpro) is not ‘special waste’ under environmental legislation if:

- it is considered non-infectious;
- does not require specialist treatment or disposal. ²

The Department of Health categorise offensive waste from municipal sources as EWC code 20 01 99.

1.2 Risks and hazards

Offensive/hygiene waste has the potential to harm the health of those exposed to it. Typical effects can be:

- skin/eye infections (e.g. conjunctivitis);
- Gastroenteritis (symptoms include stomach cramps, diarrhoea and vomiting) ³.

The waste should not be compacted unless in accordance with the conditions of an environmental permit/waste management licence. Procedures should be in place to contain, minimise, and monitor potential bio-aerosol release.

Table 1 outlines the aspects for consideration outlined by the HSE when considering necessary control measures for handling offensive/hygiene waste.

Table 1 AHP control measures

Element of AHP handling	Considerations in relation to control measures
Collection:	<ul style="list-style-type: none"> • bag/receptacle collection procedures and clear roles and responsibilities for all staff; • collections frequent enough to ensure the storage capacity of the site is not exceeded; • effective recording of the receipt and transfer of waste materials (this can help in the identification of poor segregation and labelling by producers and clients); • handling of bags kept to a minimum and materials transferred, transported or handled to prevent rupturing of bags. Bags should not be manually compacted to increase capacity; • collectors/loaders only removing bags that are clearly marked/labelled; • arrangements for reporting spillages, inadequate or incorrect packaging and labelling of excessively heavy consignments . collectors/loaders need to know who to tell and

¹ DoH (2011) Safe Management of Healthcare Waste

² HSE – Managing offensive/hygiene waste

³ HSE – Managing offensive/hygiene waste

	<p>how to contact them;</p> <ul style="list-style-type: none"> • a safe system for avoiding spillages during transportation. Placing bags within wheeled bins or other suitable rigid containers, or loading them directly into leak-proof vehicles or containers, can reduce the risk of spillage. Spillages/leakage of wastes stored at the customer site should be dealt with by site staff following their own organisation clean-up procedures; • provision of appropriate personal protective equipment; • what to do in an emergency/sharps injury, as well as fire and first aid procedures.
Lifting and handling:	<ul style="list-style-type: none"> • Wheeled bins are preferable to bags as they can reduce the risk of manual handling and sharps injuries. • Bags should not be overfilled, e.g. be more than three quarters full, and should be tied at the neck. Contents should be double bagged if there is a possibility of leakage. • Collectors/loaders should: <ul style="list-style-type: none"> ○ handle offensive (and domestic) waste bags by the neck and should not drop, drag or throw bags; ○ not accept or remove overfilled or leaking bags.
Storage and opening of bags:	<ul style="list-style-type: none"> • Offensive/hygiene wastes should be stored in designated areas prior to treatment or disposal. • Opening of bags should be avoided. Effective segregation at source will eliminate/reduce the need to open bags. • Where bags have to be opened then mechanical aides or handled tools can reduce the risk of injury and contact with potentially harmful material. • Have procedures for the handling and packaging of sharps and other contra-materials that have been incorrectly placed within the offensive/hygiene waste stream. This will include provision of dedicated/labelled receptacles, tools and personal protective equipment.
Minimising infection risk:	<ul style="list-style-type: none"> • Brief collection crew and driver of risks to health and ways in which they can pick up infections. • Systems to report damaged equipment and get it replaced. • Access to first aid kit – all exposed wounds should be covered. • Changing out of contaminated clothing before eating, drinking or smoking. • Clean contaminated equipment on site. • Report illnesses to employer. • Provide appropriate equipment for each task such as litter-picking tongs, hand brushes, shovels and rigid containers (for the removal of sharps and other hazardous/infectious waste). It may be necessary to implement procedures for cleaning and disinfecting equipment (e.g. picking tongs). • Make sure personal hygiene regime highlighted. • Vaccinations: Where effective vaccines are available against microorganisms to which employees may be exposed, then employers are required to make them available, free of charge, to employees. Employees should be informed of the benefits and drawbacks of both vaccination and non-vaccination. It is recommended that employers keep a vaccination record. Remember that although it is a useful additional measure, vaccination/inoculation is not a substitute for other control measures.

Source: HSE (01/09) Managing Offensive/Hygiene Wastes, HSE (2003) Infection at Work: Controlling Risk

1.3 Methodology

For each stage of the collection system employed a hazard and risk assessment has been undertaken.

The risk assessment has been based on a review of the existing risk assessments in place at each of the Councils for collection, transfer and bulking.

The risk and hazard review for Stirling was based on the following assumptions:

- Collection in 120 or 140 litre bin
- Collected by RCV
- Limited compaction i.e. no damage to bag or leakage

Many of the possible hazards in relation to collection of AHPs at kerbside are already identified in the Stirling risk assessment documents provided e.g. in relation to vehicle movements at collection, container loading and unloading and slips, trips and falls. The documents provided were:

Risk assessment:

- RC 01 RA – Refuse Collection Process.
- RC 02 RA - Mounting and De-Mounting Refuse Container from Hufferman RCV.
- RC03 RA – Duties relation to the cleaning of RCV's including cabs, bodies and chassis.

Safe working methods:

- RC 01 SWM – Refuse Collection Operations (Drivers & Loaders) of All RCV's (1,2 or 3 man crews).
- RC 02 SWM – Mounting and De-Mounting a container from Hufferman RCV.
- RC 03 SWM – Refuse Collection Vehicle Cleaning.

Broadly each risk assessment followed the standard HSE five-step programme for risk assessment:

1. Identify hazards
2. Decide who may be harmed and how
3. Evaluate the risk and decide on precautions
4. Record findings
5. Review and update where necessary – this included a gap analysis to identify the necessary precautions already in place in existing relevant risk assessments.

2 Risk Assessment

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual	Further Controls Advised	Likelihood	Risk Score / Residual
Offensive / hygiene waste collected and compacted as residual waste – possible bio-aerosol/infection risk	Collection crew Collection driver	3	<ul style="list-style-type: none"> Wear personal protective equipment (PPE) supplied: Protective boots, Protective gloves, Safety glasses or goggles and mask if required. <ul style="list-style-type: none"> Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished. Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. RC 01 SWM – Refuse Collection Processes. Clear labelling of AHP collection bins. 	3	9	<ul style="list-style-type: none"> Refuse crew and driver briefed on new collection. <ul style="list-style-type: none"> roles and responsibilities; infection risk; bag identification; double bagging if risk of splitting; and minimising bag handling. Staff vaccinations kept up to date. 	3	9
Wheeled bin overfilled by householder causing leakage or spillage during loading – possible bio-aerosol/infection risk	Collection crew Member of the public	3	<ul style="list-style-type: none"> Wear personal protective equipment (PPE) supplied: Protective boots, Protective gloves, Safety glasses or goggles and mask if required. <ul style="list-style-type: none"> Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished. 	3	9	<ul style="list-style-type: none"> Arrangements in place for collection crew to report problems. <ul style="list-style-type: none"> Staff vaccinations kept up to date Requirement to regularly clean PPE. 	3	9

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual	Further Controls Advised	Likelihood	Risk Score / Residual
			<ul style="list-style-type: none"> • Where any spillage of waste materials occurs operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. 					

Householders place AHPs in collection bin unbagged – possible bio-aerosol/infection risk	Collection crew Collection driver	3	<ul style="list-style-type: none"> • Wear personal protective equipment (PPE) supplied: Protective boots, Protective gloves, Safety glasses or goggles and mask if required. <ul style="list-style-type: none"> • Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished • Where any spillage of waste materials occurs (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse 	4	12	<ul style="list-style-type: none"> • Arrangements in place for collection crew to report problems. 	3	9
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Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual	Further Controls Advised	Likelihood	Risk Score / Residual
			<ul style="list-style-type: none"> before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. 					
Bags split in RCV on compaction possible bio-aerosol/infection risk	Collection crew Transfer station staff	3	<ul style="list-style-type: none"> • Wear personal protective equipment (PPE) supplied; Protective boots, Protective gloves, Safety glasses or goggles and mask if required. <ul style="list-style-type: none"> • Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished. • Where any spillage of waste materials occurs (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. <ul style="list-style-type: none"> • Containment in RCV. 	3	9	<ul style="list-style-type: none"> • Driver/crew training on compaction. • Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. • Staff vaccinations kept up to date. • Requirement to regularly clean PPE. 	3	9

Manual handling injury as a result of frequent handling and pushing of overfilled wheelie bins	Collection crew	3	<ul style="list-style-type: none"> Operatives must be trained in Manual Handling to comply with The Manual Handling Operations Regulations 1992 with attention to Appendix 1. Sections 	2	6			
--	-----------------	---	---	---	---	--	--	--

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual	Further Controls Advised	Likelihood	Risk Score / Residual
			<p>12 & 13 guidelines for pushing and pulling.</p> <ul style="list-style-type: none"> • Make judgement whether any wheeled bin is unsafe to move. If not emptied (e.g. too heavy, contaminated, burst, damaged or sharps protruding), report the reason either using Bartec (if vehicle equipped with the system) or make a note on the Daily Log Sheet (Doc 00014) <ul style="list-style-type: none"> • Operatives must undertake manual handling refresher training every 3 years. • Where any spillage of waste materials occurs (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. 					

<p>Infection through minor cuts and abrasions while handling AHP waste.</p>	<p>Collection crew</p>		<ul style="list-style-type: none"> • Wear personal protective equipment (PPE) supplied; Protective boots, Protective gloves, Safety glasses or goggles and mask if required. • Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully 	<p>3</p>	<p>9</p>	<ul style="list-style-type: none"> • Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. • Staff vaccinations kept up to date. 	<p>2</p>	<p>6</p>
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Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual	Further Controls Advised	Likelihood	Risk Score / Residual
			replenished. <ul style="list-style-type: none"> • Where any spillage of waste materials occurs (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. 					
Infection through eating, drinking and smoking after handling AHP waste	Collection crew		<ul style="list-style-type: none"> • Ensure that the following items are carried in the vehicle: Antibacterial Gel, Antiseptic wipes and First aid kit and that the associated materials are fully replenished <ul style="list-style-type: none"> • Where any spillage of waste materials occur (during the loading / unloading process) operatives should ensure that spill kits (Brush, Shovel) are employed and the materials are cleared safely. • Ensure (at all times) that appropriate levels of personal hygiene are maintained. Always wash / cleanse before eating drinking or smoking. • RC 01 SWM – Refuse Collection Processes. 	3	9	<ul style="list-style-type: none"> • Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. • Staff vaccinations kept up to date. • Requirement to regularly clean PPE. 	2	6

2.1 Reference documents

- HSE (Revised 06/11) Five steps to risk assessment
- HSE (01/09) Managing Offensive/Hygiene Wastes
- HSE (04/09) Safe Waste and Recycling Collection Services
- Department of Health (2011) Safe Management of Healthcare Waste
- HSE (2003) Infection at Work: Controlling Risk
- HSE (10/03) INDG197 - Working with Sewage: The Health Hazards
- HSE. INDG1415 - Stay Clean, Stay Healthy: Looking after health in waste industry
- NHS Lothian (2011) Infection Prevention and Control Manual
- Scottish Health Technical Note 3 (2010) NHS Scotland Waste Management Guidance
- Sniffer (2007) Best Practice Guidance for the Management of Hygiene Waste for Key Producers in Northern Ireland and Scotland

Appendix 5 - Stirling Council AHP Pre-Trial Survey

Stirling Council

AHP Pre Trial Survey (Stirlingshire)

June 2012

Report Submitted to Stirling Council

1.0 Introduction: The Trial Scheme

Households who opt in to the Absorbent Hygiene Product trial scheme in Stirling will receive a new recycling bin for AHP products. The new container will then be emptied weekly by the householder placing the new bin with the lid closed at their normal wheeled bin collection point by 7.00am on the normal wheeled bin collection day.

2.0 Methodology

250 households were surveyed in Stirling, in order to obtain a statistically representative sample of housing type and age demographics, as detailed in Table 1. All surveys took place in specified areas in and around Stirling.

Table 57

Survey Plan Showing Property Type and Age Demographics for Stirling

	Housing Type Profile				Total Surveys	Age Group Profile			
	Detached	Semi	Terr	Flat		18-29	30-44	45-59	60+
TOTAL	87	85	78		250	55	56	65	75
Bannockburn	13	13	13		39				
Bridge of Allan	12	4	2		18				
Cowie	3	9	11		23				
Deanston	3	1	1		5				
Doune	8	4	2		14				
Dunblane	39	17	11		67				
Fallin	2	13	11		26				
Plean	2	7	6		15				
St Ninians	3	7	9		19				
Whins of Milton	2	10	12		24				

3.0 Results

3.1 AHP Potential Capture

All of the results unless stated otherwise are from those households who are currently using AHP products at home. The AHP usage in Stirling and the number of projected households that could be involved in the trial based on the survey results and applying this using the Scottish Census 2001 figures are outlined:

- The total number of households eligible to receive the service within the Stirling trial area is 9,156;
- 13% of those households currently used AHP products; therefore the projected number of households who could potentially participate in the trial was 1190 households;
- Of those potential households 88% indicated they would be willing to use the service which means that 1047 households could potentially opt in to the service in Stirling; and
- 1047 Recycling Bins (120 litres) would therefore be required for the 6 month trial period in Stirling if each potential household opted in.

This represents the upper-estimate for the number of households who would opt in to this AHP-recycling service. This is the figure which was provided to the Local Authority for planning the infrastructure requirements.

- Of the 13% AHP users in Stirling; 72% were nappy users and 28% were incontinence product users;
- 96% of the disposable nappy users indicated they would be willing to use the service. This indicated that a total of 823 nappy using households would potentially opt-in to the service;
- 67% of the Incontinence Product users indicated they would be willing to use the service; indicating that a total of 223 incontinence product using households would potentially opt in to the service. This equates to 1047²⁰ potential households that could opt in to the service; and
- Of the 13% AHP users in Stirling 47% also used Female Hygiene Products; and of those 100% were willing to use the service to recycle these products; equating to 559 households.

3.1.1 Disposable Nappy Capture

The average number of disposable nappies used per household per day was 6. If all 823 households who indicated they would be willing to use the service opted in; this would equate to 4,938 nappies per day; 34,566 per week and 898,716 disposable nappies for the 6 month trial period.

Some households stated they also used and disposed of nappy sacks and wet wipes on a daily basis in addition to disposable nappies as displayed in Figure 1.

²⁰ Figures have been rounded up.

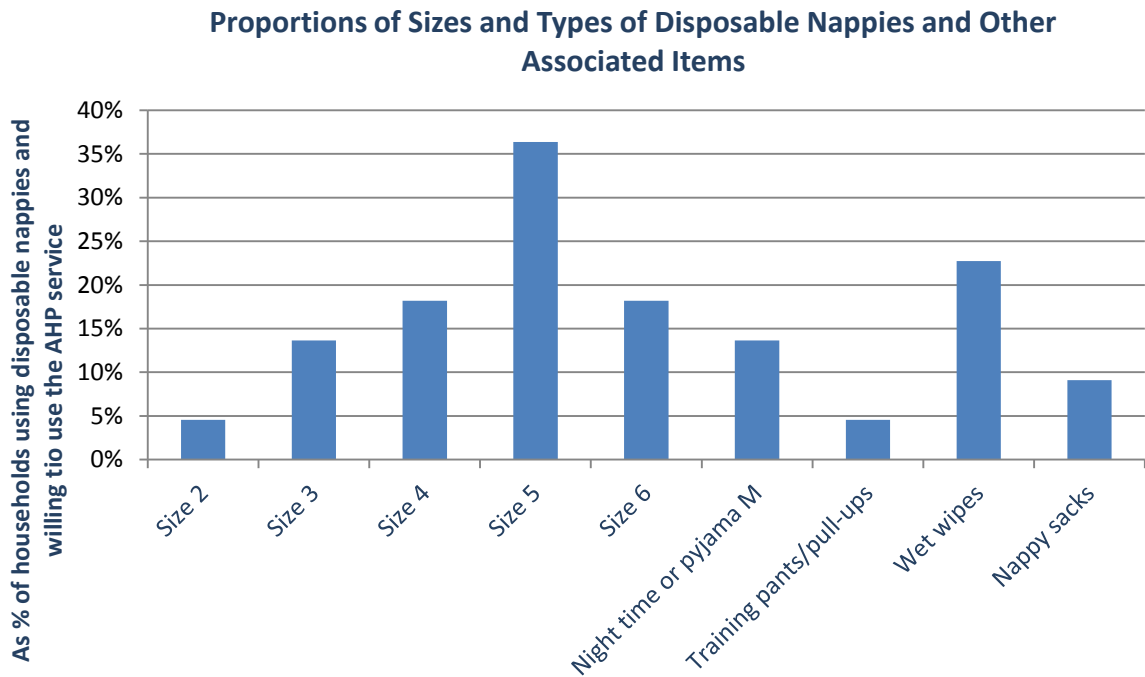


Figure 1
Sizes and Types of Disposable Nappies and Other Items Disposed of by the AHP Users Willing to Use the Service

3.1.2 Incontinence Product Capture

The average number of incontinence products used per household per day was 3. If all 223 households who indicated they would be willing to use the service opted in; this would equate to 669 incontinence products per day, 4683 per week and 121,758 for the 6 month trial period.

As well as Incontinence Pads, Pouches and Pants other items such as Colostomy bags were also disposed of.

3.1.3 Female Hygiene Product Capture

The average number of Female Hygiene Products used per household was not recorded as part of the survey. The main types of Female Hygiene Products used by the AHP Users willing to take part in the trial are displayed in Figure 2.

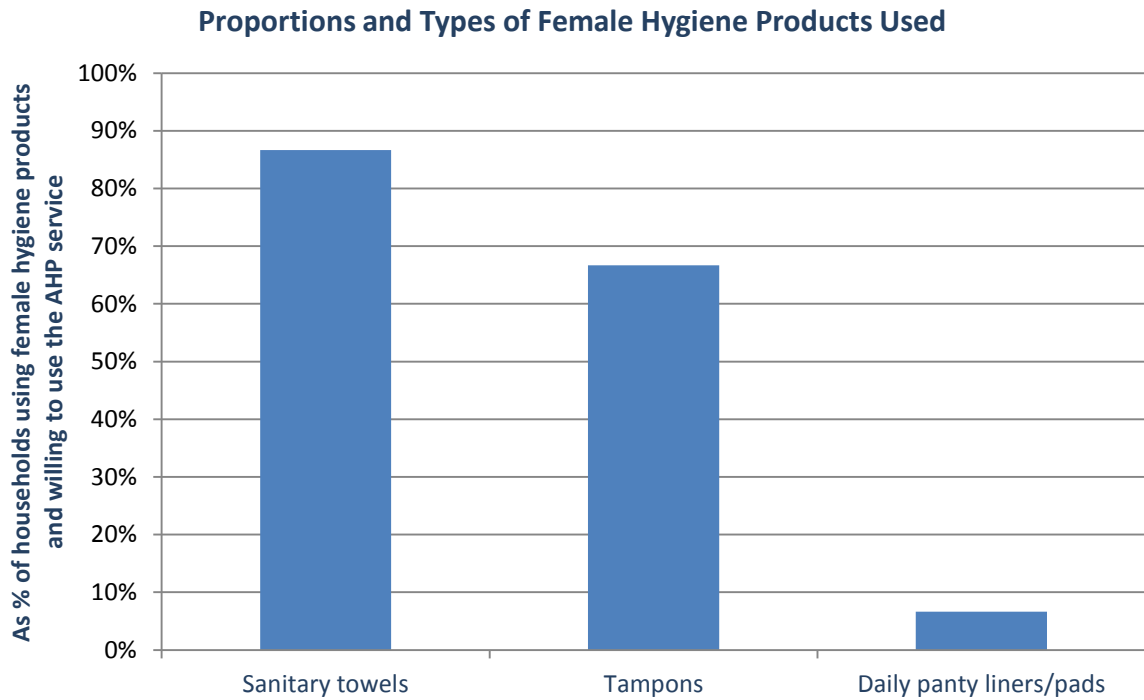


Figure 2
Proportions and Types of Female Hygiene Products Used by AHP Users willing to use the AHP Service

3.2 Acceptability of Proposed Service

85% of current AHP users indicated they would find the service either acceptable or very acceptable as shown in Figure 3. 6% of respondents answered that the service would not be acceptable with a further 6% undecided.

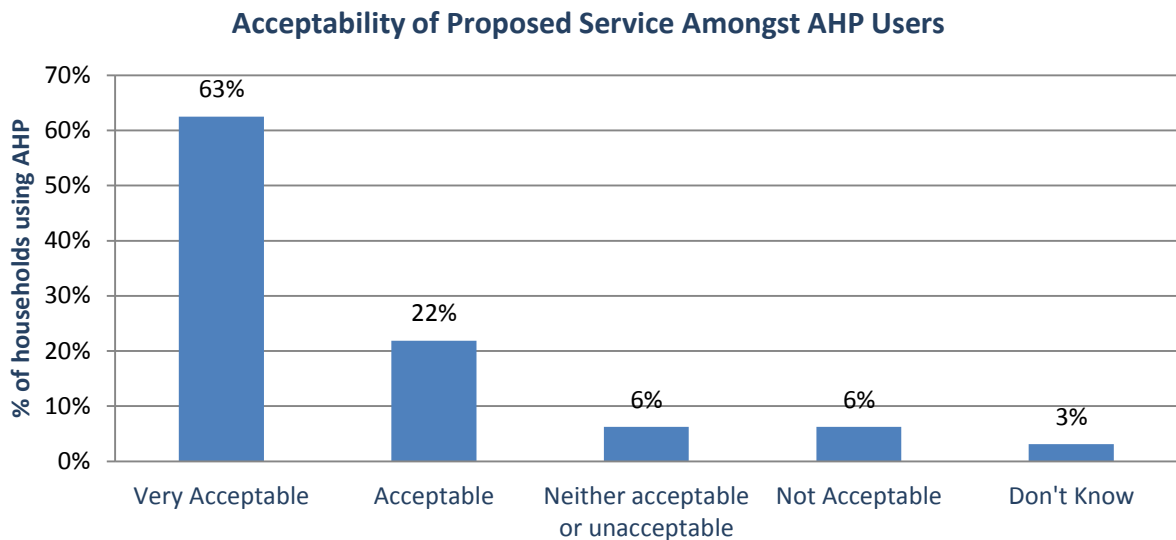


Figure 3
Acceptability of Proposed Service among AHP Users in Stirling

3.3 Willingness to Use the Service

88% of households indicated they were willing to use the service, with the remainder undecided. The reasons given for not willing to use the service were mostly issues surrounding potential embarrassment for the householders.

3.4 Benefits of Using the Service

The key benefits of this new service identified by householders are presented in Figure 4. The main responses were this would reduce waste in the normal bin, providing additional capacity, was a more hygienic method of disposal for AHP, or was better for the environment.

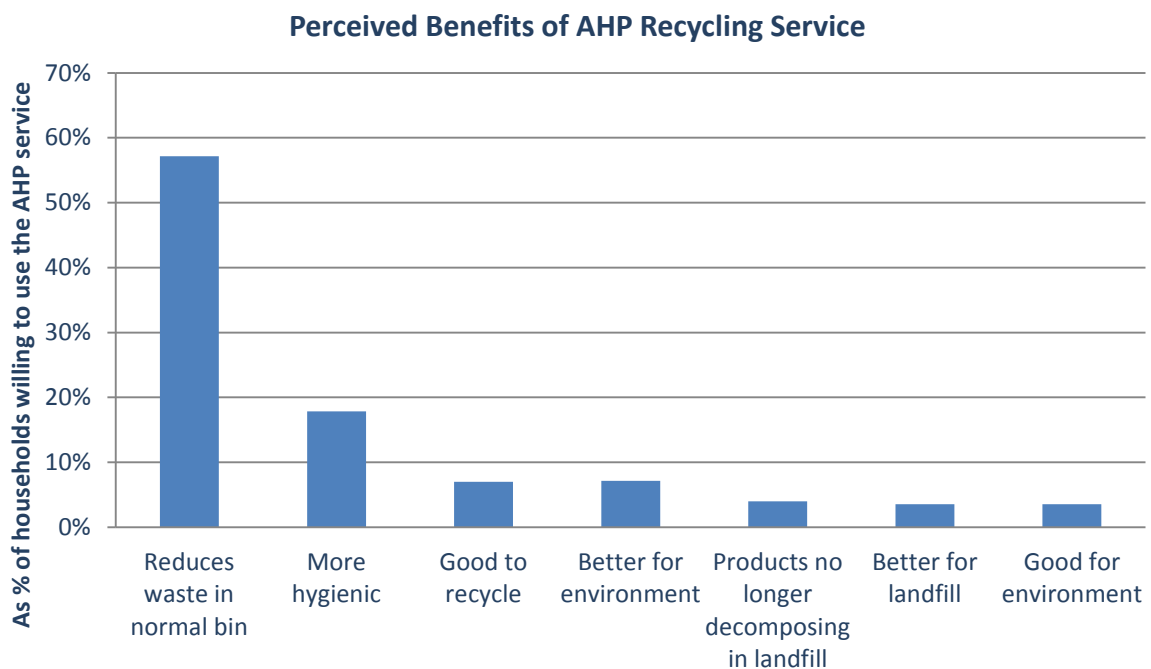


Figure 4

Perceived Benefits of AHP Recycling Service among the AHP Users Willing to Use the Service

3.5 Perceived Concerns

Only 14% of the households willing to use the service raised some concerns; the main concern was the potential smell in the bin (50%), and that families with more children may need a bigger bin.

3.6 Communication and Information Requirements

Households were asked a series of questions to identify what the most suitable type and form of communications should be to encourage them to use this new recycling service.

3.6.1 Information Requirements

Approximately 68% of households suggested types of information that would help them to effectively recycle their AHP products; as detailed in Figure 5.

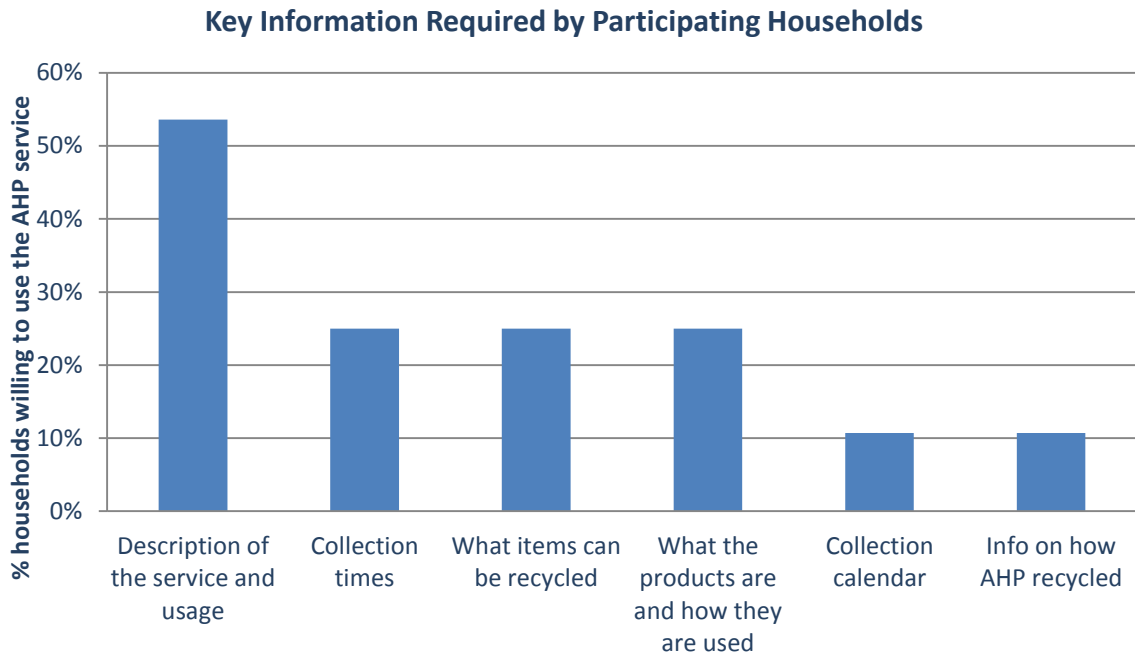


Figure 5

Key Information from Households Using AHP and Willing to Use the Service

The main types of information requested focused on the practical use of the new service; the description of the service and how to use it, the collection frequency of the service, what AHP materials could be recycled, how the recycling process worked and what products were produced.

Other comments included that people should be told about the environmental benefits of the service, the importance of the service to reduce waste from landfill, and how to cancel the service if you no longer needed to use it.

3.6.2 Key Messages

When asked what the key messages should be to encourage the public to participate in this new AHP-recycling service; households focused on the environmental benefits such as the reduction in waste to landfill, general environmental benefits including recycling, and the increased capacity in the residual bin as displayed in Figure 6.

Suggested Key Messages for AHP Communications

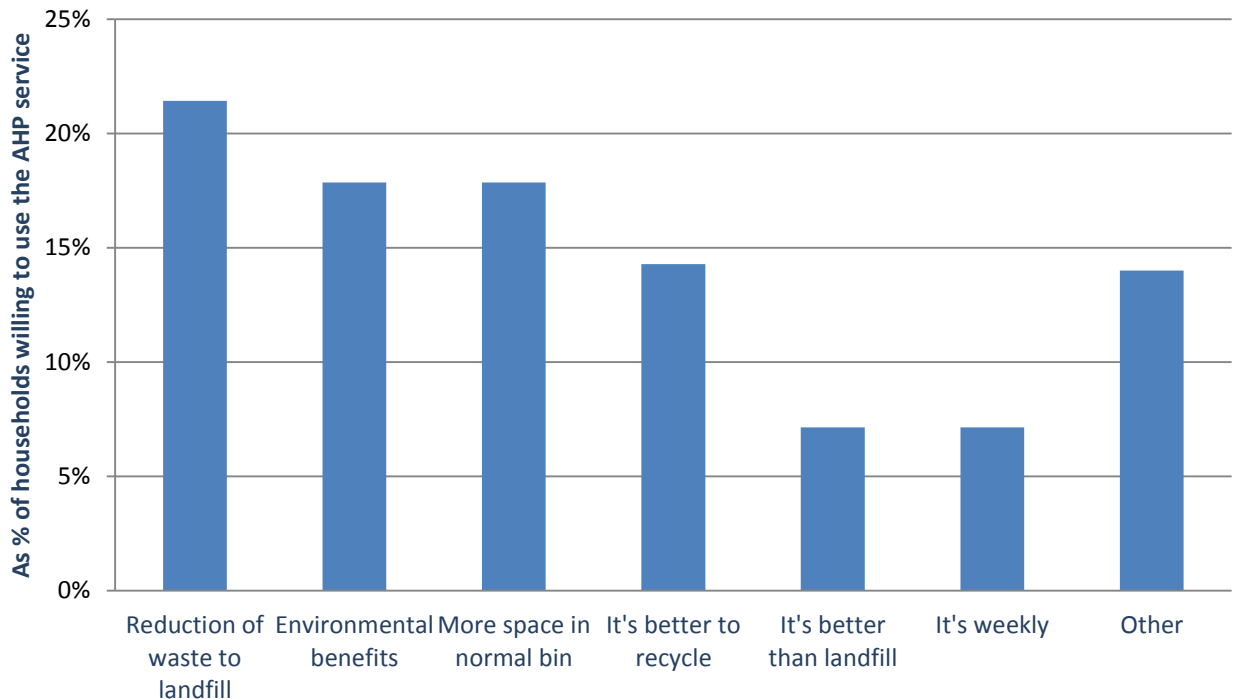


Figure 6
Key Messages Identified from Households Using AHP and Willing to Use the Service

3.6.3 Preferred Communication Formats

Households were asked what forms of communication they would prefer to receive information about the new AHP service; in addition to an introductory leaflet. The majority of people did not have a preference (68%). Of those who did the other methods suggested were Council website updates (56%), e-mail (22%), and television (22%). Additional suggestions were by letter or via the local newspaper.

3.6.4 Community Engagement Opportunities

When asked to identify other community groups, organisations or opportunities for wider community engagement for the AHP-recycling schemes, 36% of people did not respond. The most common suggestions identified by the remaining households were Mother and Toddler Groups (61%), Community Centres (33%); Nurseries (33%); Crèches, Hospital and Libraries (all 17%); and Churches (11%). Other suggestions were via Child Minders, Sheltered Housing and Playgroups.

3.7 Further Comments and Opinions for the AHP Trials

All householders were asked if they had any further comments they would like to make about the proposed AHP trial in Stirling. 41% of those provided comment:

- 46 % thought it was a good idea/worthwhile;
- 41% provided comment on the rest of the Councils services;
- 5% thought it would be embarrassing for the householder; and
- 5% thought they would have too many bins.

3.8 Opinion of the AHP Trials among the Non-AHP Users

Households who were not currently using AHP were asked to give their opinions on the overall acceptability of the scheme as well as the perceived concerns and benefits. The overall acceptability was high in both groups; 77% compared with 85% of those using AHP.

The key concerns identified by the Non-AHP Users were different to the AHP users with the key concerns being the impracticality of having another bin; the cost of the service; the issue of storing the products; the potential embarrassment to the householder; and the smell and general unpleasantness.

The benefits of recycling AHP identified by both the AHP and Non-AHP users again were similar. The primary benefit recognised by both related to the environmental benefits. However the benefit of a reduction in waste going to the residual bin was more commonly recalled by the AHP Users; 57% compared to 26% among the Non-Users.

Appendix 6 - Stirling Council Community Engagement Record

Community Engagement Record			Materials Left	
Date	Area	Location	Leaflets	Posters
19/07/2012	Fallin	Library	10	1
19/07/2012		Stirling Council Office	10	1
19/07/2012		Pharmacy	10	1
19/07/2012		Health Clinic	5	1
19/07/2012		Post Office	5	1
19/07/2012		Fallin Nursery	10	1
19/07/2012	Cowie	Youth Centre		1
19/07/2012		Pharmacy	12	1
19/07/2012		Health Centre	10	1
19/07/2012		Nisa Local	6	
19/07/2012	Plean	Keystore	6	1
19/07/2012		Post Office / Cafe	10	1
19/07/2012		Pharmacy	10	
19/07/2012		Health Clinic	10	1
19/07/2012	Dunblane	Pharmacy (Well St.)	20	1
19/07/2012		Health Centre	25	2
19/07/2012		Christian Fellowship	10	1
19/07/2012		Post Office	10	
19/07/2012		Sports Centre	20	1
19/07/2012		The Hub Toy Store	5	
19/07/2012		Meldrum Newsagents		1
19/07/2012		Pharmacy (High St.)	6	
19/07/2012		Library	10	2
19/07/2012		Community Centre		1
19/07/2012		Hummingbird Nursery	5	
19/07/2012		Wee Acorns Nursery	3	1

228 22

Appendix 7 - Stirling Council AHP Post-Trial Survey

Stirling Council

AHP Post Trial Survey

May 2013

Report Submitted to ZWS

Stirling Results

3.0 Information on the AHP Trial Scheme in Stirling

Households who opted in to the Absorbent Hygiene Product trial scheme in Stirling received a 120L recycling wheelie bin for their AHP recycling. This was a kerbside collection service and householders were to place the AHP bin with the lid closed at the kerbside at their normal collection point by 7.00am on their normal collection day.

The actual number of surveys carried out across Stirling Council was 114, 105 of the householders had opted in and 9 had not. This number allowed for a statistically robust sample with a confidence of 95% for both those households who opted in and those who did not.

The following section refers to findings from the AHP Post Trial Survey.

3.1 Survey Profile

The survey profile for Stirling is displayed in Table 1.0.

Table 1.0
Survey Profile

	Number of Households Opted In	Number of Households Who Did Not Opt In
Nappies	76	5
IC	15	1
Both	0	0
None	14*	3
Total	105	9

**Opt ins who were not using AHP can be explained by those households who were no longer using AHP and is explored later in this report.*

In this report the households have been categorised into the following groups

- Those who did not opt in;
- Those who did opt in;
 - Those who opted in but never used the service;
 - Those who opted in but were no longer using the service; and
 - Those who continued to use the service.

3.3 Those Who Had Opted In

The following section refers to all of the households who had chosen to opt in.

3.3.1 Reasons for Opting In

Both environmental benefits and to have more space in the normal bin appear to have been important in householders' decisions to opt in, as detailed in Figure 1.0.

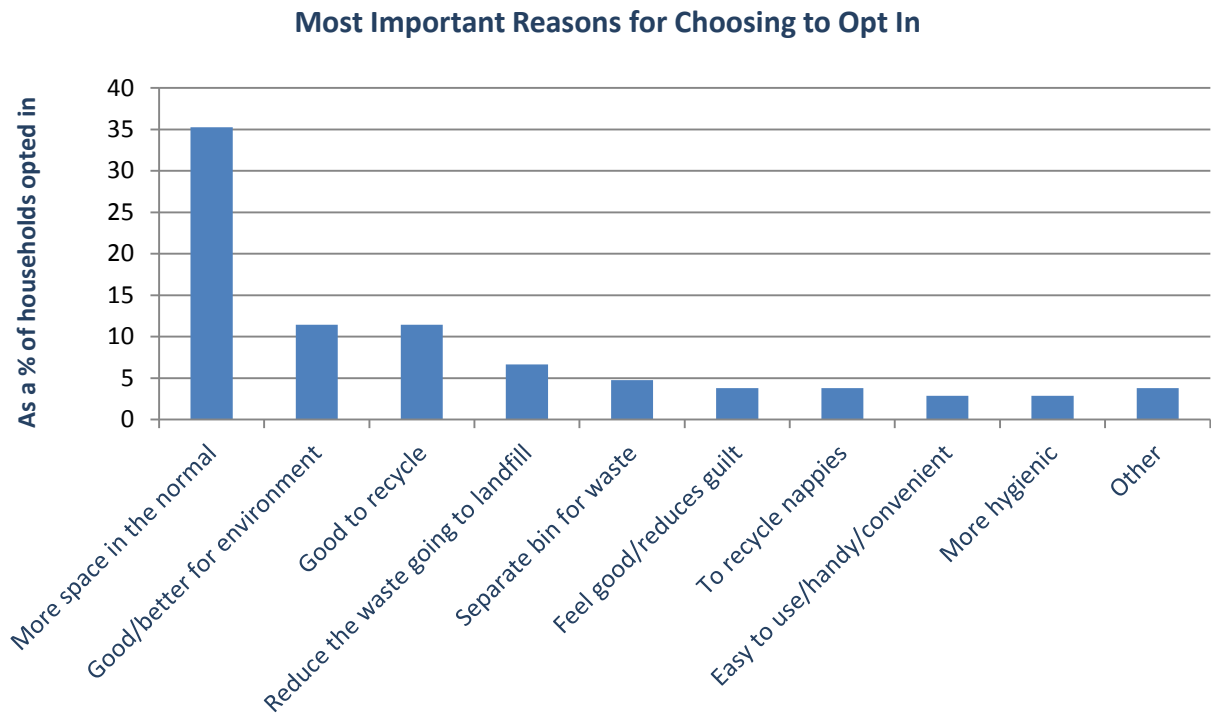


Figure 1.0
Reasons for Choosing to Opt In to the AHP Trial

3.3.2 To What Extent the Service Met Householders' Expectations

Overall the service met householders' expectations. Most stated that the service was 'Better than expected' (32%) or 'About what [they] expected' (61%). Only 4% said that the service was worse than they expected, as displayed in Figure 1.1.

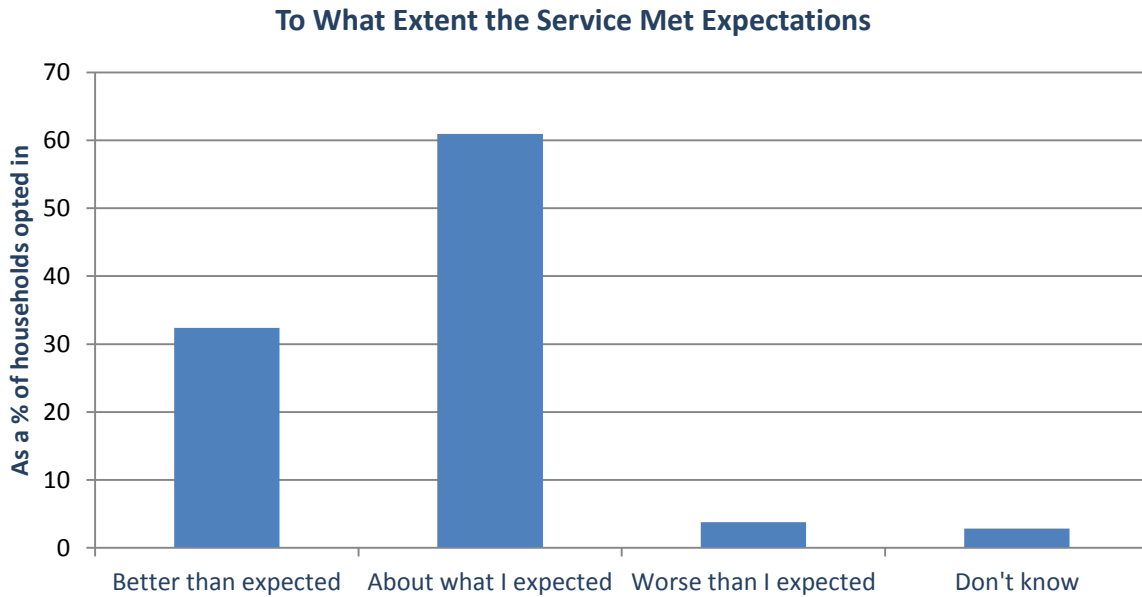


Figure 1.1
To What Extent the Service Met Expectations

3.3.3 Methods of Opting In

By far the most common way people opted in was by phone (78%); a further 10% of householders said that a carer, friend or relative did it for them, as detailed in Figure 1.2.

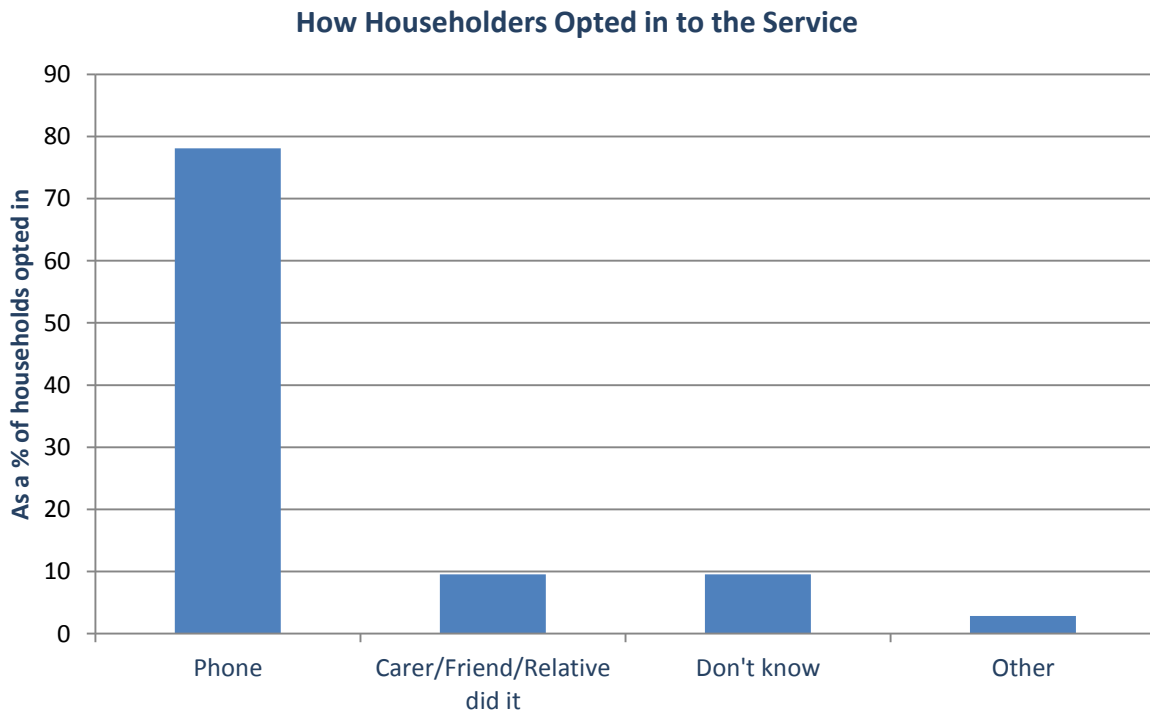


Figure 1.2
How Householders Opted in to the Service

3.3.4 Ease of Opting In

Most people found the opting in process very easy or easy (83%), as displayed in Figure 1.3.

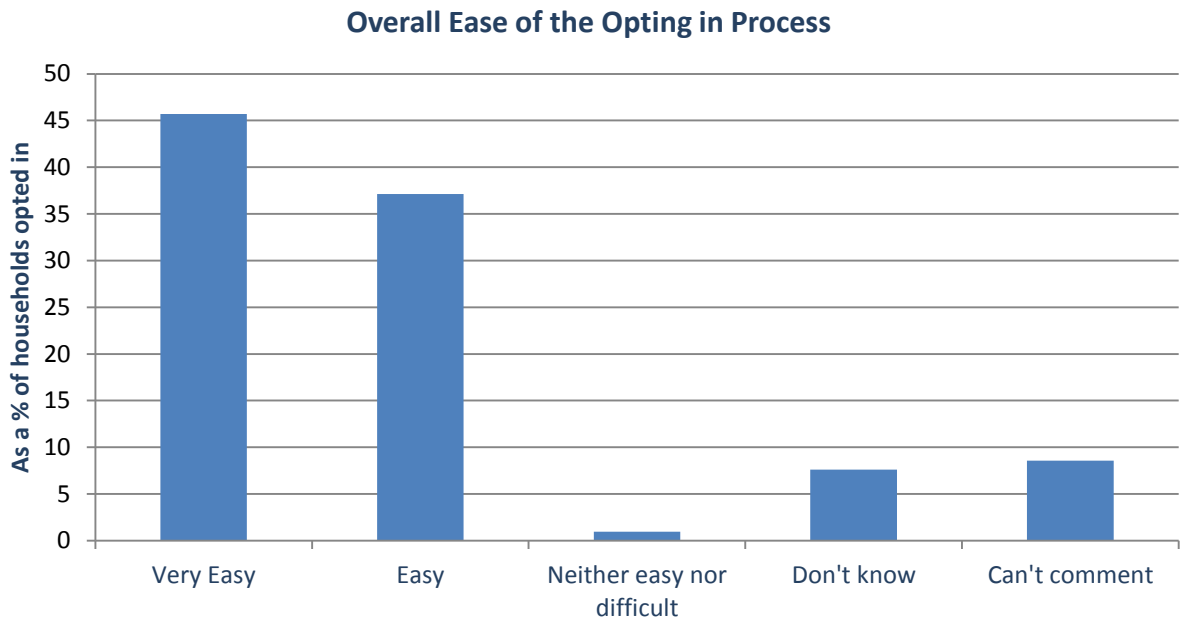


Figure 1.3
Overall Ease of the Opting in Process

3.3.5 How Householders got Information on How to Use the Service

Most people got information on how to use the service from the leaflet (70%), others found out through word of mouth (15%), as displayed in Figure 1.4.

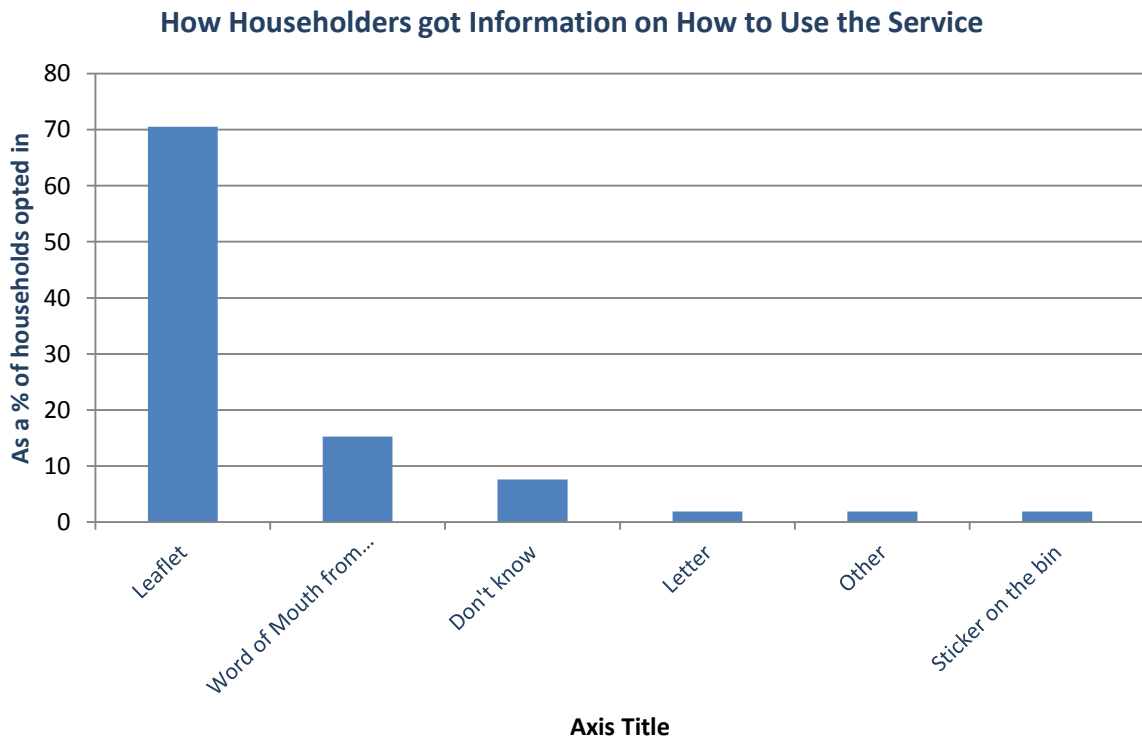


Figure 1.4
How Householders got Information on How to Use the Service

3.3.6 Whether Users Would Recommend the Service to Family and Friends

98% of householders who opted in said that they would recommend the service to family and friends, if it was available where they live.

3.3.7 Overall Summary for Those Who Opted In

- Both environmental benefits and practical reasons appear to have been important in householders' decisions to opt in;
- Most stated that the service was 'Better than expected' (32%) or 'About what [they] expected' (61%);
- By far the most common way people opted in was by phone (78%);
- Most people found the opting in process very easy or easy (83%);
- Most people got information on how to use the service from the leaflet (70%); and
- 98% of householders who opted in said that they would recommend the service to family and friends.

Service Use of Those Who Opted In

In the following section the households which opted in have been broken down into the following groups:

- Those who opted in but never used the service (0%);
- Those who opted in but were no longer using the service (13%); and
- Those who continued to use the service until the time of the post trial survey (87%).

3.3.8 Those Who Opted In but Never Used the Service

There were no households in Stirling who opted into the service but never used it. All households used the service for at least one week.

3.3.9 Those Who Opted in but were No Longer Using the Service

Of the households which opted in 13% were no longer using the service. By far the most common reason was that it was no longer needed; implying that those using the service were happy to use the service providing the requirement was still there.

Reasons provided for not using it anymore were (one response provided by each householder):

- No longer need the service (11%; 7% had used nappies, 4% had used IC);
- Bin was taken away (<1%);
- Moved house and waiting for the bin to be transferred (<1%); and
- Service wasn't reliable (<1%);

3.3.10 Those who Continued to Use the Service

The following section refers to the households which opted in and were still using the service at the time of the post-survey, 87%.

3.3.10.1 AHP Bin Fill Level against Frequency of Presenting AHP Bin

Most users put the bin out for collection once a week (75%), or once a fortnight (22%), as displayed in Figure 1.5.

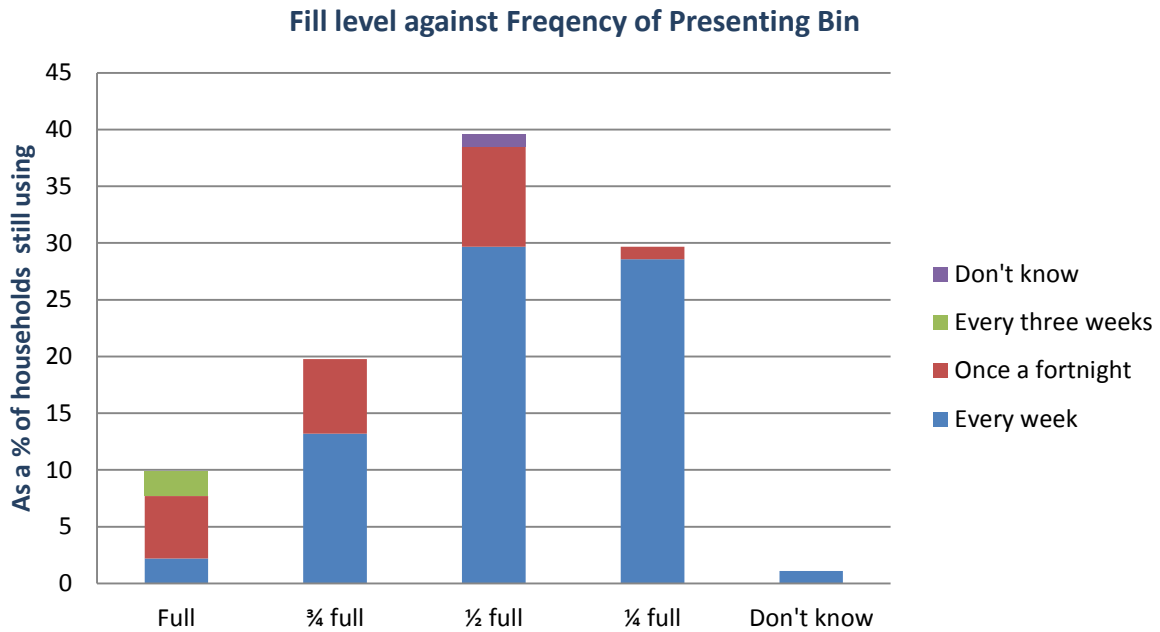


Figure 1.5
AHP Bin Fill Level against Frequency of Presenting Bin

Only 7% of the users who presented their bin weekly said it was 3/4 full to full when they did so, 59% presented their bin every week when their bin was 1/2 full or less. Far fewer users appeared to wait until the bin is 3/4 full to full before presenting their bin.

3.3.10.2 Fortnightly Collections

60% of households said a fortnightly collection would be sufficient for their households needs, 35% said that it would not and 5% were undecided, as displayed in Figure 1.6.

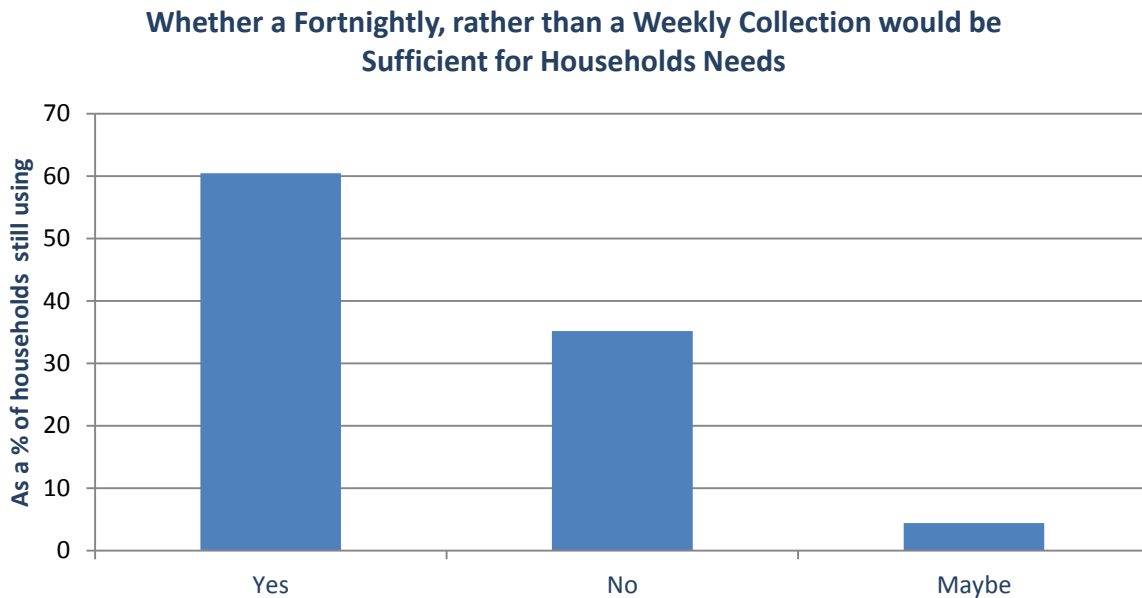


Figure 1.6

Whether a Fortnightly Collection would be Sufficient for Households Needs

3.3.10.3 AHP Bin Usage

The vast majority of householders said that the AHP bin was used for all of their AHP waste at home, this suggests that once people started to use the AHP bin the majority of AHP waste generated in the household was recycled. Only 2% of householders reported using their normal bin for AHP waste sometimes, reasons provided for doing so were:

- If in a rush (1%) and;
- If the AHP bin was full (1%).

3.3.10.4 Suitability of the AHP Bin

99% of households still using the service said that the bin was suitable for collecting their AHP waste. When asked what they liked about the bin the responses were:

- Nothing in particular (52%);
- Good size (26%);
- Kept the waste out of the other bin (15%);
- Easy/convenient to use (12%);
- Hygienic (5%); and
- Wheels (3%).

3.3.10.5 Problems Experienced with the Bin

The vast majority of users reported that they had experienced no problems when using the service. 7% of householders identified the following problems:

- Too big (2%);
- Lid comes off (1%);
- Too small (1%);
- Fell over (1%); and
- Wheels come off (1%).

3.3.10.6 Suggested Improvements to the AHP Bin

89% householders had no suggestion as to how to improve the AHP bin. Those who gave suggestions mentioned the following:

- Smaller bin (7%);
- Bigger bin (2%);
- Nothing in particular (1%); and
- Wider wheels (1%).

3.3.10.7 Bin Storage

All users kept the AHP bin outside or in a shed/garage.

3.3.10.8 AHP Bin Summary for Stirling

Key points:

- Most users put the AHP bin out for collection once a week (59%), regardless of their fill level;
- Only 2% of the users who presented their bin weekly said it was full when they did so;
- While 60% said a weekly collection would be sufficient for their household's needs a substantial proportion (35%) said it would not be;
- The vast majority of householders (98%) said that they used the bin for all of their AHP waste when they were at home;
- 99% of householders said the AHP bin was suitable for collecting their AHP waste; and
- 93% of users experienced no problems with their bin.

3.3.11 Benefits of Using the Service and Reasons for Opting In

Benefits identified with using the service were similar to reasons why householders had chosen to opt in. For those still using the service the primary benefit mentioned was that it ‘more space in the normal bin’ (45%), this is similar to the percentage of those who provided it as a reason for initially opting in (42%), as displayed in Figure 1.7.

Benefits of Using the Service and Reasons for Opting In

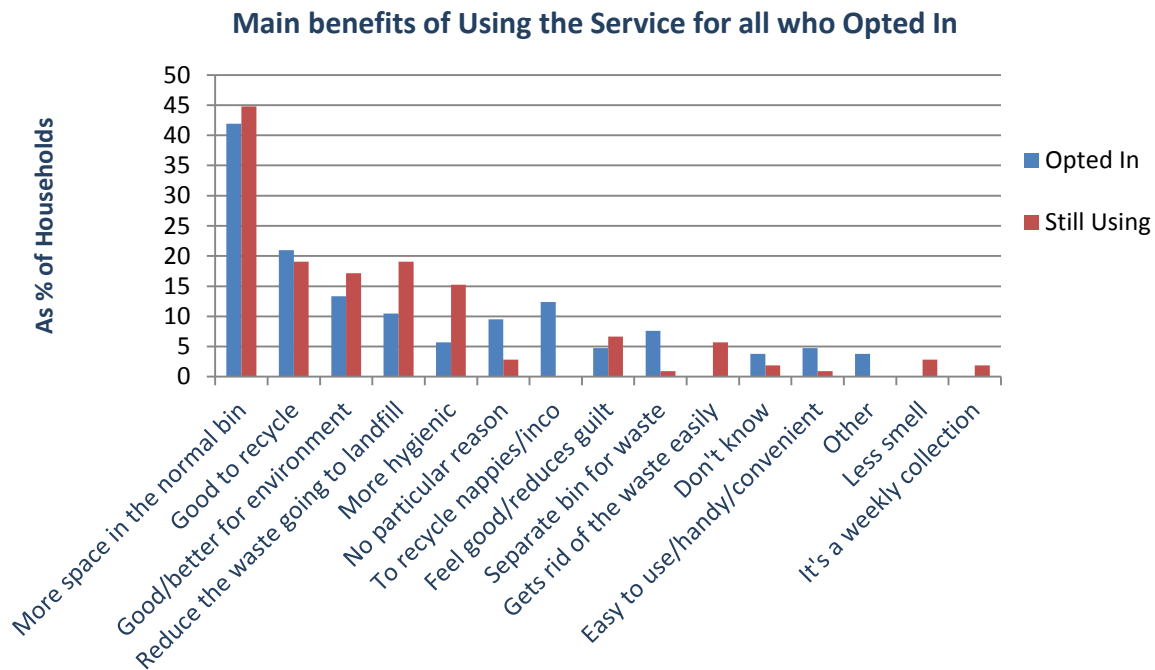


Figure 1.7

Benefits of Using the Service and Reasons for Opting In

The environmental benefits ‘Reduces waste going to landfill’, ‘Good to recycle’ and ‘Good/better for the environment’ were mentioned at least once by 49% of householders²¹. This suggests that the recycling aspect of the service was important to the public and householders were not solely motivated by having more space in their normal bin.

²¹ In Figure 1.8 householders were allowed to provide multiple responses.

3.3.12 Ease of Use of the Service

The vast majority of people still using the service rated it as easy or very easy to use (95%), as displayed in Figure 1.8.

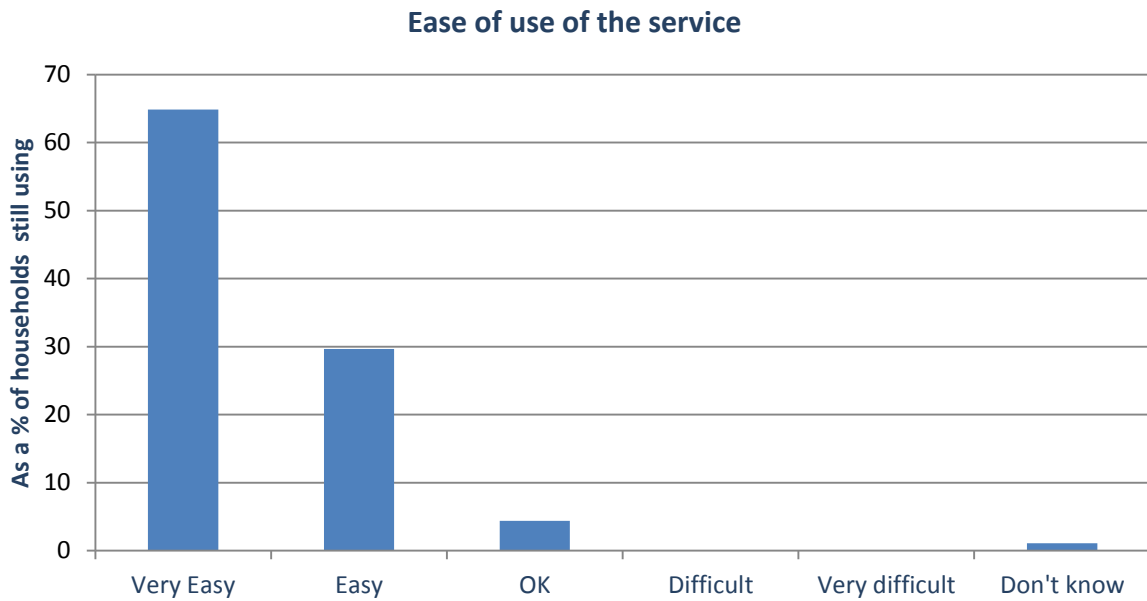


Figure 1.8

Ease of Use of the Service

3.3.13 Service Satisfaction

Satisfaction with the service was extremely high, with 98% of householders being very satisfied or satisfied with this, as displayed in Figure 1.9.



Figure 1.9

Overall Satisfaction with the Service

3.3.14 Problems when Using the Service

The majority of householders (85%) did not report any problems when using the service. The only issue mentioned by householders was the operational aspect of missed collections (15%).

3.3.15 Whether Users would Opt In to the Service if it was Offered on a Permanent Basis

97% of those still using the service said that they would opt into the service if it was offered on a permanent basis. This clearly demonstrates the popularity of this trial.

3.3.16 Summary for Those Still Using the Service

- Householders appear to be motivated to use the service because of recycling and by having more space in their normal bin;
- The vast majority of people still using the service rated it as easy or very easy to use (95%);
- Satisfaction with the service was extremely high, with 98% of householders being very satisfied or satisfied;
- The only issue mentioned by householders was the operational aspect of missed collections (15%); and
- 97% of those still using the service said that they would opt into the service if it was offered on a permanent basis.

3.4 Those who had Not Opted In

The following section refers to those householders who did not opt in to the trial service.

NB: All households had been using AHP at the time of the pre-survey.

3.4.1 Reasons for Not Opting in

The following reasons were given for not opting into the service:

- Don't know (3 householders);
- I didn't know about the service (2 householders);
- Didn't have the need (2 householders);
- Bin wasn't delivered (1 householder);
- Don't have enough waste (1 householder); and
- Forgot to opt in (1 householder).

There were no responses that indicated that the householders did not like the concept of the service.

3.4.2 Encouragements to Use the Service

Those who did not opt in were asked what would have encouraged them to opt in and the responses were:

- Don't know (3 householders);
- If I have the need (2 householders);
- If bin was provided (1 householder);
- If I had more information (1 householder);
- If I had more waste (1 householder);
- Secure, leak free bags (1 householder); and
- Secure container (1 householder).

3.5 Communications

Stirling Council sent a leaflet to every property in the trial area to introduce the New AHP Recycling Service. Other activities included:

- Leaflets were distributed within the area in order to raise local awareness and encourage uptake (distributed to all households);
- Posters were distributed amongst local businesses, health centres, pharmacies, nurseries and community centres;
- Discussions took place with the shop-owners, librarians, pharmacists and health workers to ensure they were aware of the recycling service and understood its operation;
- Decals were placed on AHP bins which showed householders what could go into the bin (for those who opted in); and
- Postcards were delivered to each household to reinforce how to use the service (for those who opted in).

The following section refers to all of the households which opted in to use the service.

3.5.1 Awareness of the AHP Trial

The leaflet was most effective at raising awareness of the AHP trial, 65% of householders became aware of the service from this. 16% became aware through word of mouth and other responses are displayed in Figure 1.10.

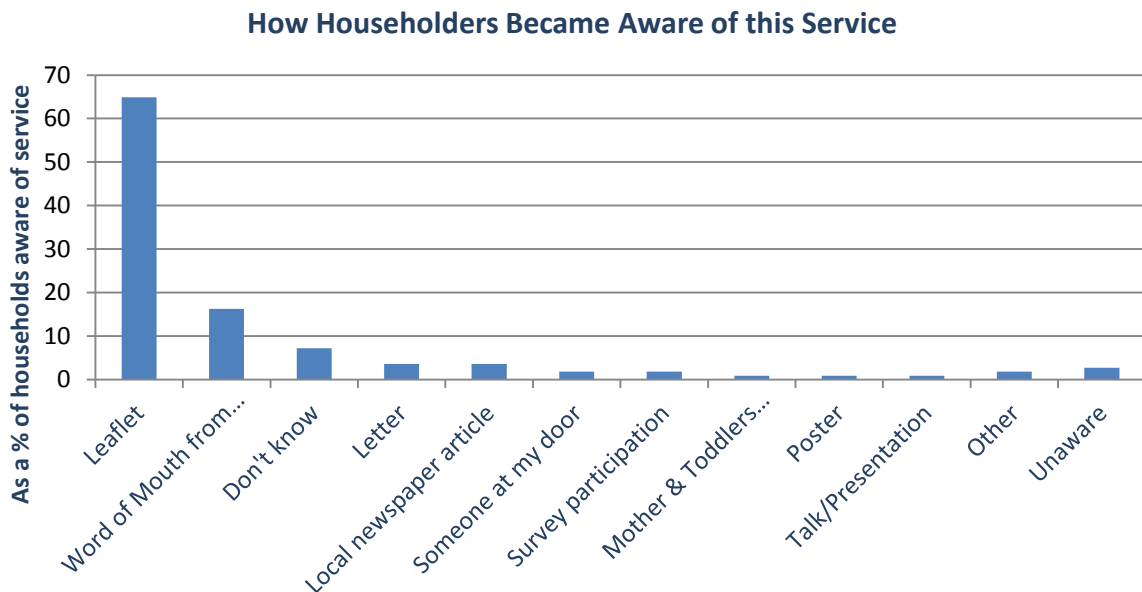


Figure 1.10
How Householders Became Aware of this Service

3.5.2 Communication Materials

3.5.2.1 Leaflet

74% of the households said they had received a leaflet through the door about the trial. When prompted with the leaflet this increased to 75%. Of these 92% agreed with the statement “The leaflet told me everything I need to know”, 2% disagreed and 6% householders didn’t know or could not remember.

25% householders who received the leaflet kept it for future reference, 54% did not and a further 21% did not know or could not remember.

3.5.2.2 Poster

11% of householders said they had seen a poster about AHP Recycling. When prompted with the poster this reduced to 9%. The posters were seen at the following locations:

- Community Centre (2% of all households);
- Shop (2%);
- Council Offices (1%);
- Doctors (1%);
- Library (1%);
- Primary/Nursery School (1%); and
- Don’t know (1%).

3.5.2.3 Presentation

12% of households said that someone had spoken to them about the new service. This took place by the following methods:

- Someone came to the door (5%);
- Word of Mouth from friend/family/neighbour/colleague (5%);
- Mother & Toddlers Group/Play group (1%); and
- When the bin was delivered (1%).

3.5.2.4 Bin Decal

73% of households who opted in said they had seen a sticker on their AHP container, 95% of these found the sticker useful, 5% did not or didn’t know.

3.5.2.5 Postcard

11% of all households said they had received a postcard about the trial. When prompted with the postcard this increased to 14%. 75% of householders who received the postcard agreed with the statement “The postcard told me everything I need to know”, 6% disagreed and 19% could not remember.

3.5.3 Recycling Nappies/Incontinence Products is Good for the Environment

96% of householders agreed or strongly agreed with the statement “Recycling nappies/Incontinence Products is Good for the Environment”, as displayed in Figure 1.11.

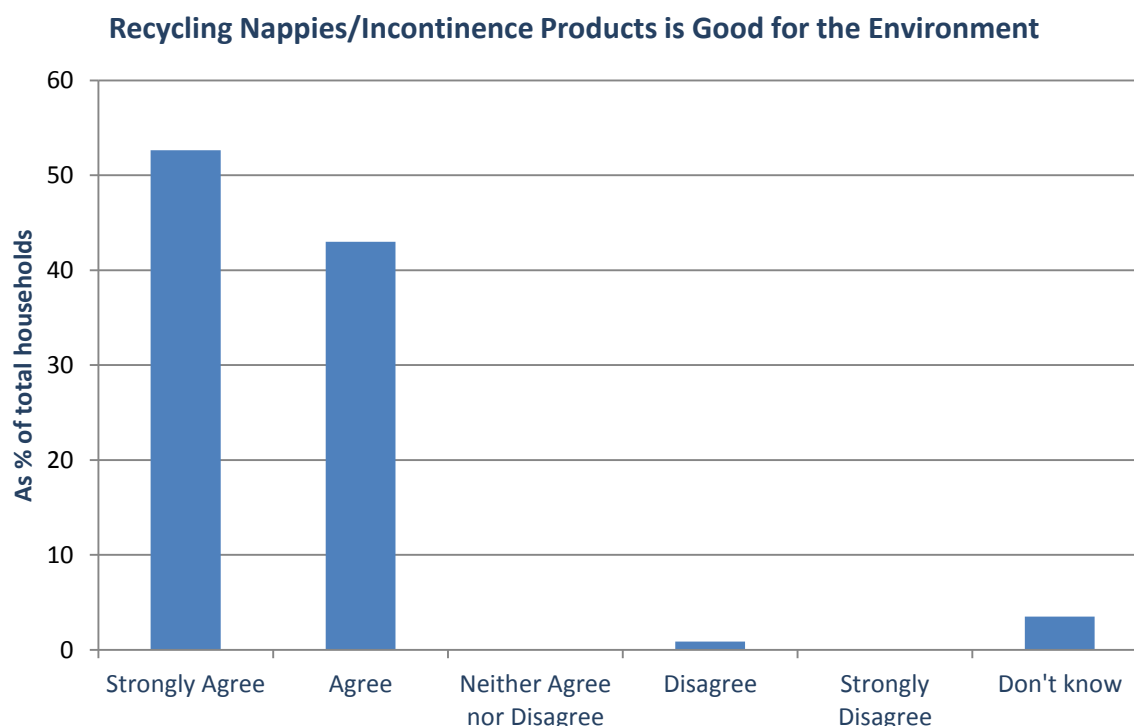


Figure 1.11

Recycling Nappies/Incontinence Products is Good for the Environment

3.5.4 Knowledge of What AHP Products can be Recycled into

Although about 50% of householders who opted in appeared to be motivated by recycling or other environmental benefits, knowledge of what AHP products can be turned into was very poor with only 18% of household providing a correct answer. 77% of householders responded with ‘don’t know’. Recall of correct and incorrect materials is listed below:

- Benches (9%);
- Garden furniture (5%);
- Cardboard (4%);
- Decking (4%);
- Bollards (3%);
- Railway sleepers (2%);
- Can't comment (1%);
- Other (9%).

3.5.5 Further Comments and Opinions on the AHP Trials

All householders were asked if they had any further comments they would like to make about the AHP trial in Stirling. 28% said it was a good service/idea and/or they hope it continued.

Appendix 8 - Perth & Kinross Council Hazard and Risk Assessment

AHP Collection Trial Logistics

Perth and Kinross Council

Hazard and Risk Assessment

June 2012

1 Hazard and risk assessment

1.1 Offensive/hygiene waste

For the process of the hazard and risk assessment the AHP has been treated as hygiene / offensive waste and not clinical waste.

Offensive/hygiene waste is defined by the Department of Health as waste that:

- may cause offence due to the presence of recognisable healthcare waste items or body fluids;
- does not meet the definition of an infectious waste;
- does not possess any hazardous properties; and
- is not identified by the producer, or holder, as needing disinfection, or any other treatment, to reduce the number of microorganisms present.¹

Offensive/hygiene waste (previously known as sanpro) is not ‘special waste’ under environmental legislation if:

- it is considered non-infectious;
- does not require specialist treatment or disposal.²

The Department of Health categorise offensive waste from municipal sources as EWC code 20 01 99.

1.2 Risks and hazards

Offensive/hygiene waste has the potential to harm the health of those exposed to it. Typical effects can be:

- skin/eye infections (e.g. conjunctivitis);
- Gastroenteritis (symptoms include stomach cramps, diarrhoea and vomiting)³.

The waste should not be compacted unless in accordance with the conditions of an environmental permit/waste management licence. Procedures should be in place to contain, minimise, and monitor potential bio-aerosol release.

Table 1 outlines the aspects for consideration outlined by the HSE when considering necessary control measures for handling offensive/hygiene waste.

Table 1 AHP control measures

Element of AHP handling	Considerations in relation to control measures
Collection:	<ul style="list-style-type: none"> • bag/receptacle collection procedures and clear roles and responsibilities for all staff; • collections frequent enough to ensure the storage capacity of the site is not exceeded; • effective recording of the receipt and transfer of waste materials (this can help in the identification of poor segregation and labelling by producers and clients); • handling of bags kept to a minimum and materials transferred, transported or handled to prevent rupturing of bags. Bags should not be manually compacted to increase capacity; • collectors/loaders only removing bags that are clearly marked/labelled; • arrangements for reporting spillages, inadequate or incorrect packaging and labelling of excessively heavy consignments . collectors/loaders need to know who to tell and

¹ DoH (2011) Safe Management of Healthcare Waste

² HSE – Managing offensive/hygiene waste

³ HSE – Managing offensive/hygiene waste

	<p>how to contact them;</p> <ul style="list-style-type: none"> • a safe system for avoiding spillages during transportation. Placing bags within wheeled bins or other suitable rigid containers, or loading them directly into leak-proof vehicles or containers, can reduce the risk of spillage. Spillages/leakage of wastes stored at the customer site should be dealt with by site staff following their own organisation clean-up procedures; • provision of appropriate personal protective equipment; • what to do in an emergency/sharps injury, as well as fire and first aid procedures.
Lifting and handling:	<ul style="list-style-type: none"> • Wheeled bins are preferable to bags as they can reduce the risk of manual handling and sharps injuries. • Bags should not be overfilled, e.g. be more than three quarters full, and should be tied at the neck. Contents should be double bagged if there is a possibility of leakage. • Collectors/loaders should: <ul style="list-style-type: none"> ○ handle offensive (and domestic) waste bags by the neck and should not drop, drag or throw bags; ○ not accept or remove overfilled or leaking bags.
Storage and opening of bags:	<ul style="list-style-type: none"> • Offensive/hygiene wastes should be stored in designated areas prior to treatment or disposal. • Opening of bags should be avoided. Effective segregation at source will eliminate/reduce the need to open bags. • Where bags have to be opened then mechanical aides or handled tools can reduce the risk of injury and contact with potentially harmful material. • Have procedures for the handling and packaging of sharps and other contra-materials that have been incorrectly placed within the offensive/hygiene waste stream. This will include provision of dedicated/labelled receptacles, tools and personal protective equipment.
Minimising infection risk:	<ul style="list-style-type: none"> • Brief collection crew and driver of risks to health and ways in which they can pick up infections. • Systems to report damaged equipment and get it replaced. • Access to first aid kit – all exposed wounds should be covered. • Changing out of contaminated clothing before eating, drinking or smoking. • Clean contaminated equipment on site. • Report illnesses to employer. • Provide appropriate equipment for each task such as litter-picking tongs, hand brushes, shovels and rigid containers (for the removal of sharps and other hazardous/infectious waste). It may be necessary to implement procedures for cleaning and disinfecting equipment (e.g. picking tongs). • Make sure personal hygiene regime highlighted. • Vaccinations: Where effective vaccines are available against microorganisms to which employees may be exposed, then employers are required to make them available, free of charge, to employees. Employees should be informed of the benefits and drawbacks of both vaccination and non-vaccination. It is recommended that employers keep a vaccination record. Remember that although it is a useful additional measure, vaccination/inoculation is not a substitute for other control measures.

Source: HSE (01/09) Managing Offensive/Hygiene Wastes, HSE (2003) Infection at Work: Controlling Risk

1.3 Methodology

For each stage of the collection system employed a hazard and risk assessment has been undertaken. The risk assessment has been based on a review of the existing risk assessments in place at each of the Councils for collection, transfer and bulking. In Perth and Kinross this included:

- Risk assessment – Refuse Collection Section Generic – Driver/Loader
- Risk assessment – Refuse Collection – Driver /Loader
- Refuse Collection – Driver / Loader: Safe Systems at Work

The risk and hazard review for Perth and Kinross was based on the following assumptions:

- Collection in tiger bags / coloured sacks
- Use of refuse collection containers (140 litre bin, Rubbermaid)
- Collection by RCV or box van
- Limited compaction i.e. no damage to bag or leakage

Many of the possible hazards in relation to collection of AHPs at kerbside are already identified in the Perth and Kinross risk assessment documents provided e.g. in relation to vehicle movements at collection, container loading and unloading and slips, trips and falls. Additional hazards are identified in the table below.

Broadly each risk assessment followed the standard HSE five-step programme for risk assessment:

1. Identify hazards
2. Decide who may be harmed and how
3. Evaluate the risk and decide on precautions
4. Record findings
5. Review and update where necessary – this included a gap analysis to identify the necessary precautions already in place in existing relevant risk assessments.

2 Risk Assessment

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Offensive / hygiene waste collected and compacted as residual waste – possible bio-aerosol/infection risk	Collection crew Collection driver	3	<ul style="list-style-type: none"> Regular monitoring. Collection in yellow and black striped bag (tiger bag). Collection in coloured sacks 	4	12	<ul style="list-style-type: none"> Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> roles and responsibilities; infection risk; bag identification; double bagging if risk of splitting; and minimising bag handling. Refuse crew and driver briefed on new collection including: Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Bags overfilled by householder causing leakage or spillage – possible bio-aerosol/infection risk	Collection crew Member of the public	3	<ul style="list-style-type: none"> Drivers/Crew trained in carrying out dynamic “on-the-job” risk assessments. Training in use and storage of PPE. Designated and supplementary PPE. 	4	12	<ul style="list-style-type: none"> Arrangements in place for collection crew to report problems. Procedure for collection crew to leave bags if overfilled. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	3	9
Bags split on lifting from kerbside - possible bio-aerosol/infection risk	Collection crew Member of the public	3	<ul style="list-style-type: none"> Drivers/Crew trained in carrying out dynamic “on-the-job” risk assessments. Training in use and storage of PPE. Designated and supplementary PPE. Regular monitoring. 	4	12	<ul style="list-style-type: none"> Procedure in place for double bagging Arrangements in place for collection crew to report problems. Procedure for collection crew to leave bags if overfilled. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	3	9

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Bags split in RCV on compaction possible bio-aerosol/infection risk	Collection crew Transfer site staff	3	<ul style="list-style-type: none"> • Driver/crew training on compaction • Containment in RCV. • Training in use and storage of PPE. • Regular monitoring. 	3	9	<ul style="list-style-type: none"> • Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. • Procedure in place to report illnesses. • Staff vaccinations kept up to date. 	3	9
Manual handling injury as a result of frequent moving and loading of tiger bags.	Collection crew	3	<ul style="list-style-type: none"> • Detailed instruction on manual handling techniques – including choosing routes • Driver/crew trained in correct handling techniques, specifically in moving sacks. • Crews trained in manual handling techniques where sacks must be held close to the body. • Regular reviews of system and periodic refresher training. • Wearing of Ballistic Trousers. • Drivers trained in correct use of rave rail. • Regular monitoring. 	3	9	<ul style="list-style-type: none"> • Arrangements in place for collection crew to report problems • Procedure for collection crew to leave bags if overfilled. 	3	9
Infection through minor cuts and abrasions while handling AHP waste.	Collection crew	3	<ul style="list-style-type: none"> • Access to medical kit with plasters. • Hand washing/personal hygiene regime 	3	9	<ul style="list-style-type: none"> • Collection crew and driver briefed on new collection. <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. • Procedure in place to report illnesses. • Staff vaccinations kept up to date. 	2	6
Infection through eating, drinking and smoking after	Collection crew	3	<ul style="list-style-type: none"> • Hand washing/personal hygiene regime 	3	9	<ul style="list-style-type: none"> • Collection crew and driver briefed on new collection. 	2	6

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
handling AHP waste						<ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; ○ bag identification; ○ double bagging if risk of splitting; and ○ minimising bag handling. ● Procedure in place to report illnesses. ● Staff vaccinations kept up to date. 		

2.1 Reference documents

- HSE (Revised 06/11) Five steps to risk assessment
- HSE (01/09) Managing Offensive/Hygiene Wastes
- HSE (04/09) Safe Waste and Recycling Collection Services
- Department of Health (2011) Safe Management of Healthcare Waste
- HSE (2003) Infection at Work: Controlling Risk
- HSE (10/03) INDG197 - Working with Sewage: The Health Hazards
- HSE. INDG1415 - Stay Clean, Stay Healthy: Looking after health in waste industry
- NHS Lothian (2011) Infection Prevention and Control Manual
- Scottish Health Technical Note 3 (2010) NHS Scotland Waste Management Guidance
- Sniffer (2007) Best Practice Guidance for the Management of Hygiene Waste for Key Producers in Northern Ireland and Scotland

Appendix 9 - Perth & Kinross Council (Crieff) AHP Pre-Trial Survey

Perth and Kinross Council: Crieff

AHP Pre Trial Survey

June 2012

Report Submitted to Zero Waste Scotland

1.0 Introduction: The Trial Scheme

Households who opt in to the Absorbent Hygiene Product trial scheme in Crieff will receive a new recycling bin with a free 6 month supply of yellow and black recycling sacks. The householder will be asked to put the used AHP products into the recycling sacks, tie them securely and put them into the new recycling bin. The recycling bin with the lid closed should be placed at the normal bin collection point by 7:30 am every Saturday. The new recycling bins will be emptied every week by Perth and Kinross Council.

2.0 Methodology

250 households were surveyed across the three trial areas within Perth and Kinross: Crieff, Auchterarder and Tulloch in Perth, in order to obtain a statistically representative sample of housing type and age demographics, as detailed in Table 1.

Table 58
Survey Plan Showing Property Type and Age Demographics for all Three Trial Areas in Perth and Kinross

	Housing Type Profile				Total Surveys	Age Group Profile			
	Detached	Semi	Terrace	Flat		18-29	30-44	45-59	60+
Total	105	72	73		250	47	55	66	83
Auchterarder	43	18	18		79				
Crieff	55	33	22		110				
Tulloch	7	21	33		61				

3.0 Results

3.1 AHP Potential Capture

All of the results unless stated otherwise are from those households who are currently using AHP products at home. The AHP usage in Crieff and the number of projected households that could be involved in the trial based on the survey results and applying this using the Scottish Census 2001 figures are outlined:

- The total number of households eligible to receive the service within the Crieff trial area is 1,927;
- 5% of those households currently used AHP products; therefore the projected number of households who could potentially participate in the trial was 96 households;
- Of those potential households 100% indicated they would be willing to use the service which means that 96 households could potentially opt in to the service in Crieff; and
- 96 recycling containers and 12,526 yellow and black recycling sacks would therefore be required for the 6 month trial period in Crieff if each household uses 130 sacks (5 per week).

This represents the upper-estimate for the number of households who would opt-in to this AHP-recycling service. This is the figure which was provided to the Local Authority for planning the infrastructure requirements.

- Of the 5% AHP users in Crieff; 83% were nappy users and 17% were incontinence product users;
- 100% of the disposable nappy users indicated they would be willing to use the service. This indicated that a total of 80 nappy using households would potentially opt in to the service;
- 100% of the Incontinence Product users indicated they would be willing to use the service; indicating that a total of 16 incontinence product using households would potentially opt in to the service.
- This equates to 96 potential households that could opt in to the service; and
- Of the 5% AHP users in Crieff 100% also used Female Hygiene Products; and of those 100% were willing to use the service to recycle these products; equating to 96 households.

3.1.1 Disposable Nappy Capture

The average number of disposable nappies used per household per day was 4. If all 80 households who indicated they would be willing to use the service opted in; this would equate to 320 nappies per day; 2,240 per week and 58,240 disposable nappies for the 6 month trial period.

Some households stated they also used and disposed of nappy sacks and wet wipes on a daily basis in addition to disposable nappies as displayed in Figure 1.

Proportions of Sizes and Types of Disposable Nappies and Other Associated Items in Crieff

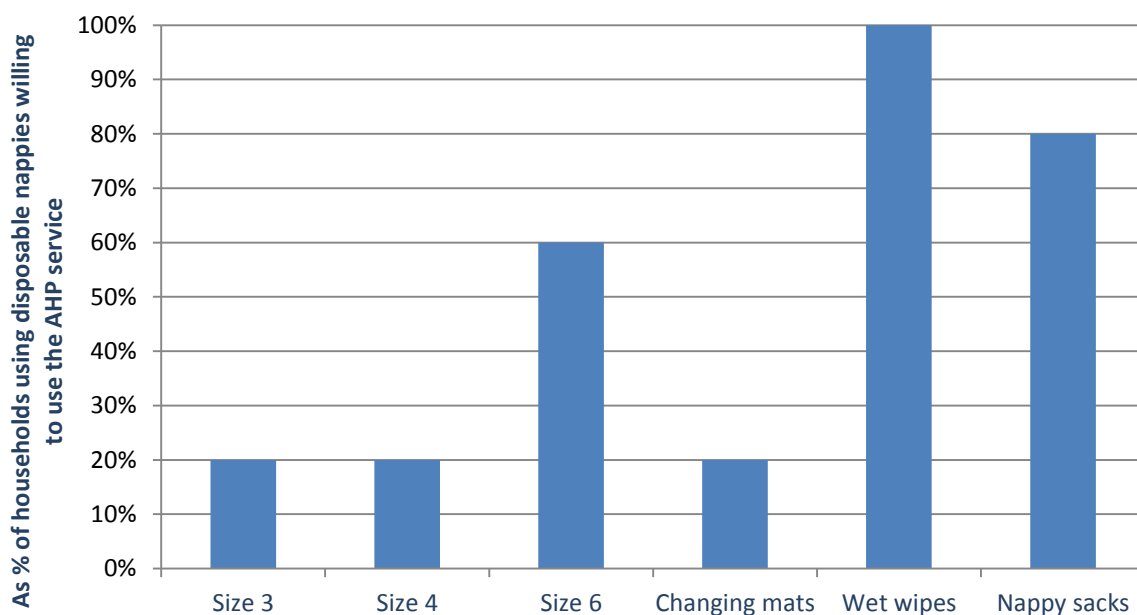


Figure 1
Sizes and Types of Disposable Nappies and Other Items Disposed of by the AHP Users in Crieff Willing to Use the Service

3.1.2 Incontinence Product Capture

The average number of incontinence products used per household per day was 3. If all 16 households who indicated they would be willing to use the service opted in; this would equate to 48 incontinence products per day, 336 per week and 8,738 for the 6 month trial period.

3.1.3 Female Hygiene Product Capture

The average number of female hygiene products used per household was not recorded as part of the survey. The main types of female hygiene products used by the AHP Users willing to take part in the trial are displayed in Figure 2.

Proportions and Types of Female Hygiene Products Used In Crieff

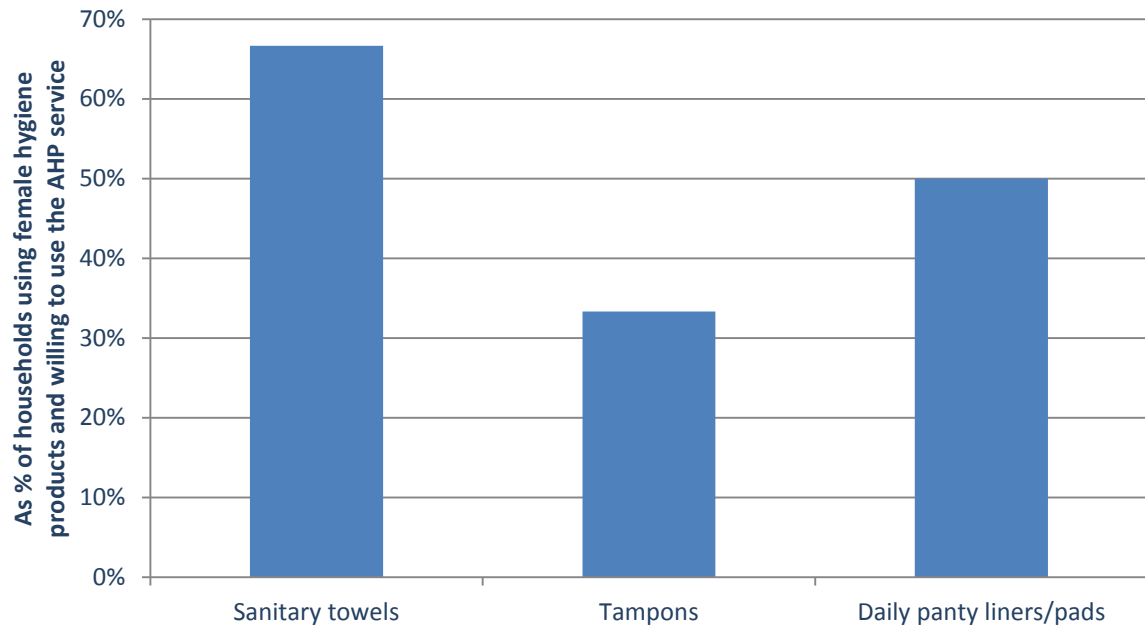


Figure 2

Proportions and Types of Female Hygiene Products Used by AHP Users willing to use the AHP Service in Crieff

3.2 Acceptability of Proposed Service

100% of current AHP users in Crieff indicated they would find the service very acceptable.

3.3 Willingness to Use the Service

100% of households indicated they were willing to use the service in Crieff.

3.4 Benefits of Using the Service

The key benefits of this new service identified by householders in Crieff are presented in Figure 3. The responses given were that it would reduce waste in the normal bin (33%); be better for the environment (33%); and be better for landfill (33%).

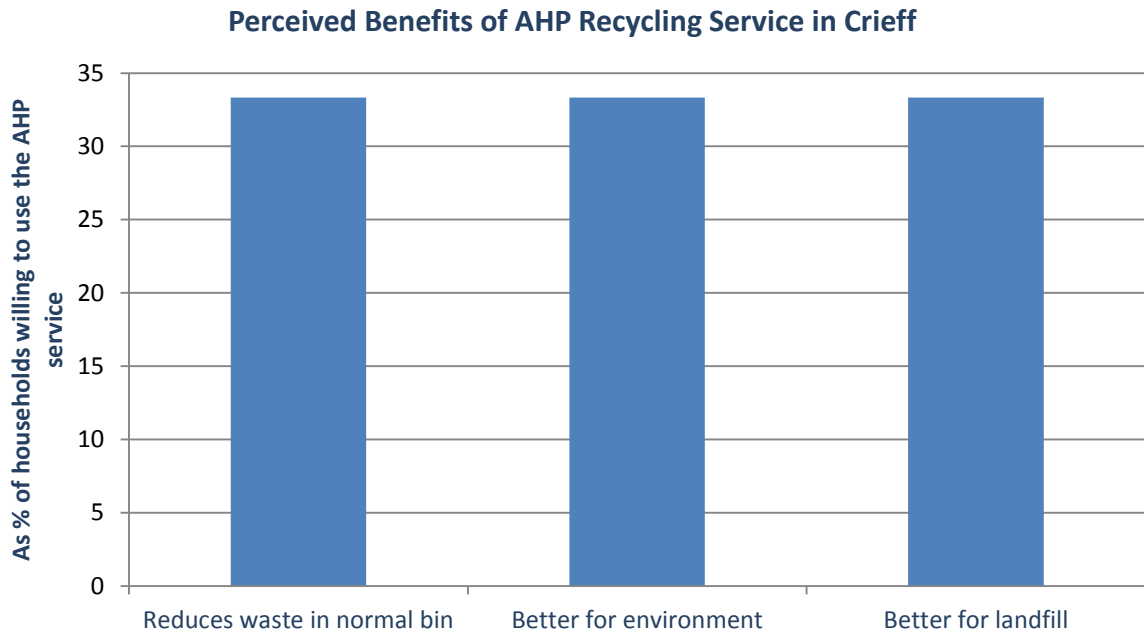


Figure 3

Perceived Benefits of AHP Recycling Service among the AHP Users Willing to Use the Service in Crieff

3.5 Perceived Concerns

Only one household expressed concern; this was in relation to that this new service could encourage people to use disposable rather than Real Nappies.

3.6 Communication and Information Requirements

Households were asked a series of questions to identify what the most suitable type and form of communications should be to encourage them to use this new recycling service.

3.6.1 Information Requirements

100% of households suggested types of information that would help them to effectively recycle their AHP products; as detailed in Figure 4.

The main types of information requested focused on the practical use of the new service; the description of the service and how to use it, what the products from the recycling process are; and how they would be used.

Key Information Required by Participating Households in Crieff

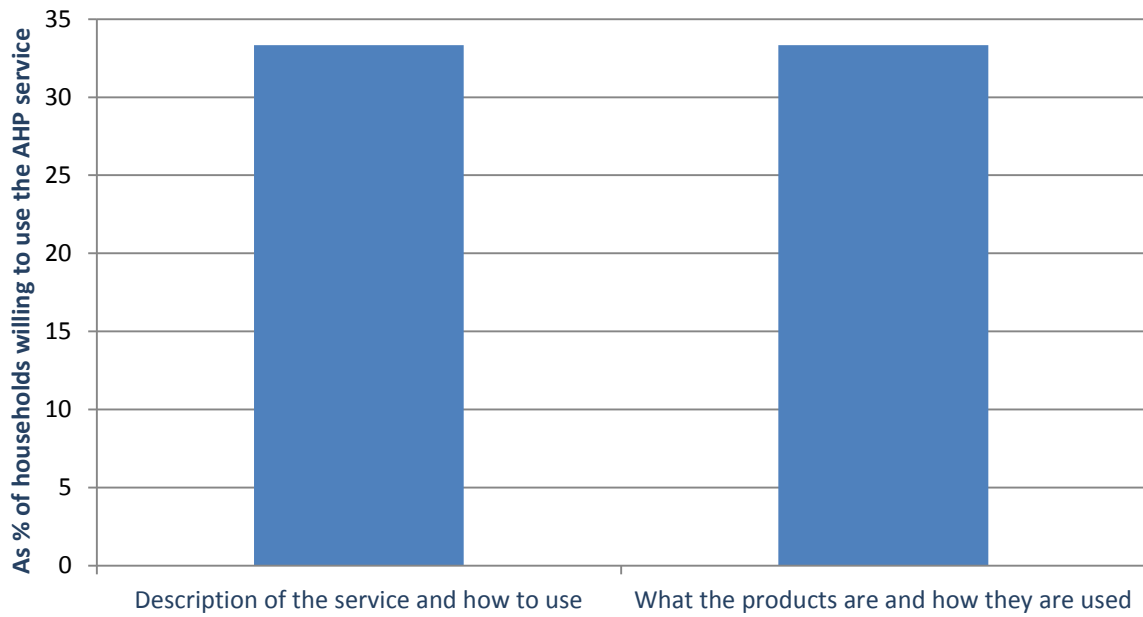


Figure 4

Information Required by Households Currently Using AHP in Crieff

Other comments included that people should be given information about the environmental benefits; the importance of the service to the public; the importance of the service to reduce the amount of waste going to landfill; and what AHP materials can and cannot be recycled using this new service.

3.6.2 Key Messages

When asked what the key messages should be to encourage the public to participate in this new AHP-recycling service, households primarily focused on the reduction of waste to landfill; the environmental benefits; and an increase in the capacity of the residual bin as displayed in Figure 5.

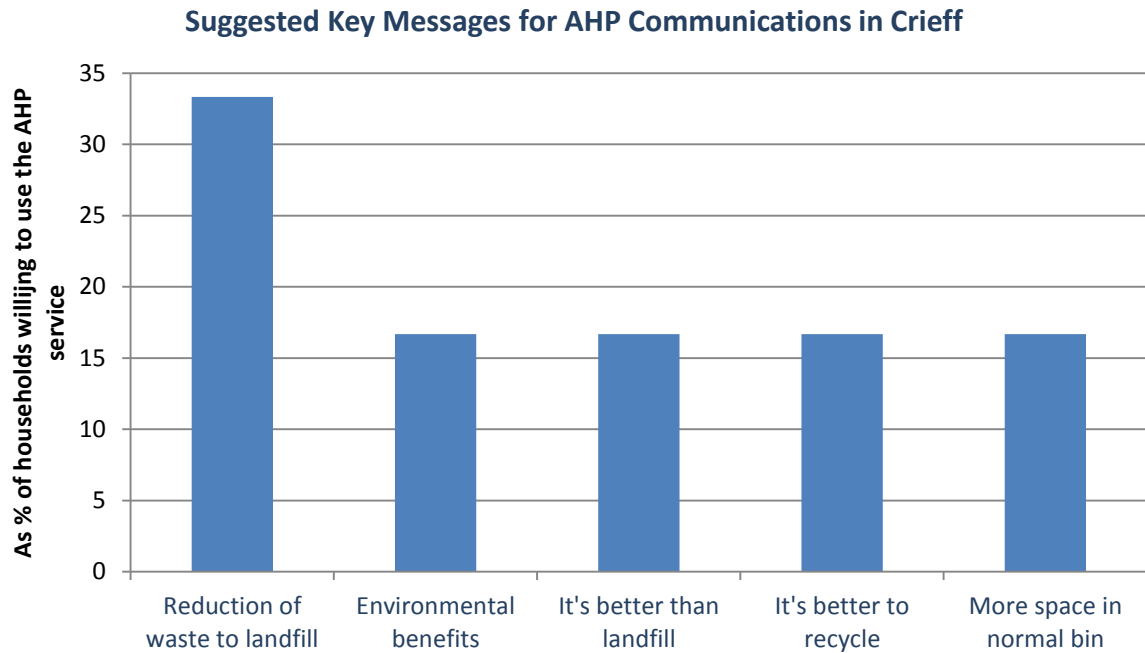


Figure 5
Key Messages Identified from Households Using AHP and Willing to Use the Service in Crieff

3.6.3 Preferred Communication Formats

Households were asked what forms of communication they would prefer to receive information about the new AHP service; in addition to an introductory leaflet. The majority of people did not have a preference (83%). By e-mail was suggested by one person as an additional method that could be used.

3.6.4 Community Engagement Opportunities

When asked to identify other community groups, organisations or opportunities for wider community engagement for the AHP-recycling schemes, 33% of people did not respond. The most common suggestions identified by the remaining households are detailed in Figure 6.

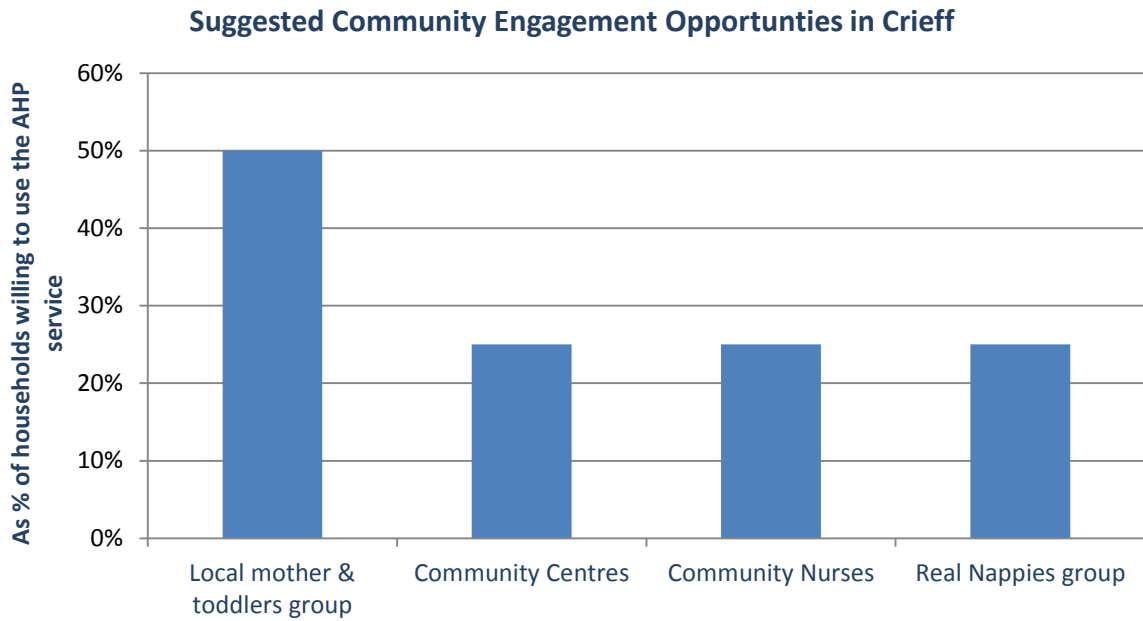


Figure 6
Suggested Community Engagement Opportunities in Crieff

These were Local Mother and Toddler Groups (50%), Community Centres (25%); Community Nurses (25%); and the Real Nappies Group (25%).

3.7 Further Comments and Opinions for the AHP Trials

All householders were asked if they had any further comments they would like to make about the proposed AHP trial in Crieff. 3% provided comment; one person stated it was a good idea as long as it saved the Council money; and another person commented that the same collection service should be used across Scotland.

3.8 Opinion of the AHP Trials among the Non-AHP Users

Households who were not currently using AHP were asked to give their opinions on the overall acceptability of the scheme as well as the perceived concerns and benefits. The overall acceptability was lower at 93% compared with 100% of those using AHP.

13% of the Non-AHP Users expressed concerns about the service; the majority of which were in relation to the recycling container in terms of it being an additional bin, and lack of storage space. One other concern raised was in relation to hygiene concerns associated with this new service.

The benefits of recycling AHP identified by both the AHP and Non-AHP users again were broadly similar. The benefits recognised by both related to the benefits to landfill. More general environmental benefits were greater in the AHP Users as was the recognition of increased capacity within the residual bin.

Appendix 10 - Perth & Kinross Council (Crieff) Community Engagement Record

Community Engagement Record				
Date	Area	Location	Leaflets (Quantity)	Posters (Quantity)
04/07/2012	Crieff	Teddy Bear Care Nursery	7	1
04/07/2012	Crieff	Little Scallywags Nursery	6	1
04/07/2012	Crieff	Strathearn Community Library	10	1
04/07/2012	Crieff	Strathearn Community Campus (Leisure Centre)	10	1
04/07/2012	Crieff	Crieff Community Hospital	6	1
04/07/2012	Crieff	Crieff Health Centre	6	1
04/07/2012	Crieff	Right Medicine Pharmacy	1	
04/07/2012	Crieff	Davidsons Chemist	5	
04/07/2012	Crieff	Capability Scotland	5	1
12/07/2012	Crieff	Fish in Crieff Shop	6	
12/07/2012	Crieff	Red Squirrel Café		1
12/07/2012	Crieff	An Cnoc	2	1
12/07/2012	Crieff	Crieff Community Initiative Shop		1
12/07/2012	Crieff	Nickel n Dime Shop		1
12/07/2012	Crieff	DE Shoes		1
12/07/2012	Crieff	Cancer Research UK		1
12/07/2012	Crieff	Christian Book Shop	2	
12/07/2012	Crieff	RS McColl		1
12/07/2012	Crieff	Boots	5	1
12/07/2012	Crieff	Police Station		1
12/07/2012	Crieff	Adam Boyd Newsagent		1
12/07/2012	Crieff	The Orchid Chinese Takeaway	4	
12/07/2012	Crieff	Strathearn Pharmacy	1	1
12/07/2012	Crieff	Council Building (Housing)		1
12/07/2012	Crieff	Crieff Learning Centre	5	1
12/07/2012	Crieff	The Natural Clinic	3	
12/07/2012	Crieff	The Eye Centre Optometrist		1
12/07/2012	Crieff	Naismith Barber	1	1
12/07/2012	Crieff	Crystal Therapies Shop	3	
28/08/2012	Crieff	St Dominics Primary School	2	1
28/08/2012	Crieff	Crieff Primary and Creche	2	2
			92	25

Appendix 11 – Perth & Kinross Council (Crieff) AHP Post-Trial Survey

Perth and Kinross Council - Crieff

AHP Post Trial Survey

May 2013

Report Submitted to ZWS

3.0 Crieff Results

3.1 Information on the AHP Trial Scheme in Crieff

Households who opted in to the Absorbent Hygiene Product trial scheme in Crieff received a 120L recycling wheelie bin with a free 6 month supply of recycling sacks which were yellow and black (30L tiger sacks). The householders were asked to put the used AHP products into the recycling sacks, tie them securely and put them into the AHP recycling bin. The recycling bin, with the lid closed, was to be placed at the normal bin collection point by 7:30 am every Saturday for collection.

The actual number of surveys carried out in Crieff was 42, 39 of the householders had opted in and 3 had not. This number allowed for a statistically robust sample with a confidence of 95% for those households who opted in and those who did not.

The following section refers to findings from the AHP Post Trial Survey.

3.2 Survey Profile

The survey profile for Crieff is displayed in Table 1.0.

Table 1.0
Survey Profile

	Number of Households Opted In	Number of Households Who Did Not Opt In
Nappies	25	3
IC	12	0*
Both	2	0
None	0	0
Total	39	3

** There was only one IC user in the pre-survey who did not opt in, the surveyors returned to the house three times and did not manage to survey this householder. One extra nappy user who did not opt in was surveyed.*

In this report the households have been categorised into the following groups

- Those who did not opt in;
- Those who did opt in;
 - Those who opted in but never used the service;
 - Those who opted in but were no longer using the service; and
 - Those who continued to use the service.

3.4 Those Who Had Opted In

The following section refers to all of the households who had chosen to opt in.

3.4.1 Reasons for Opting In

Both environmental benefits and to have more space in the normal bin appear to have been important in householders' decisions to opt in, as detailed in Figure 1.0.

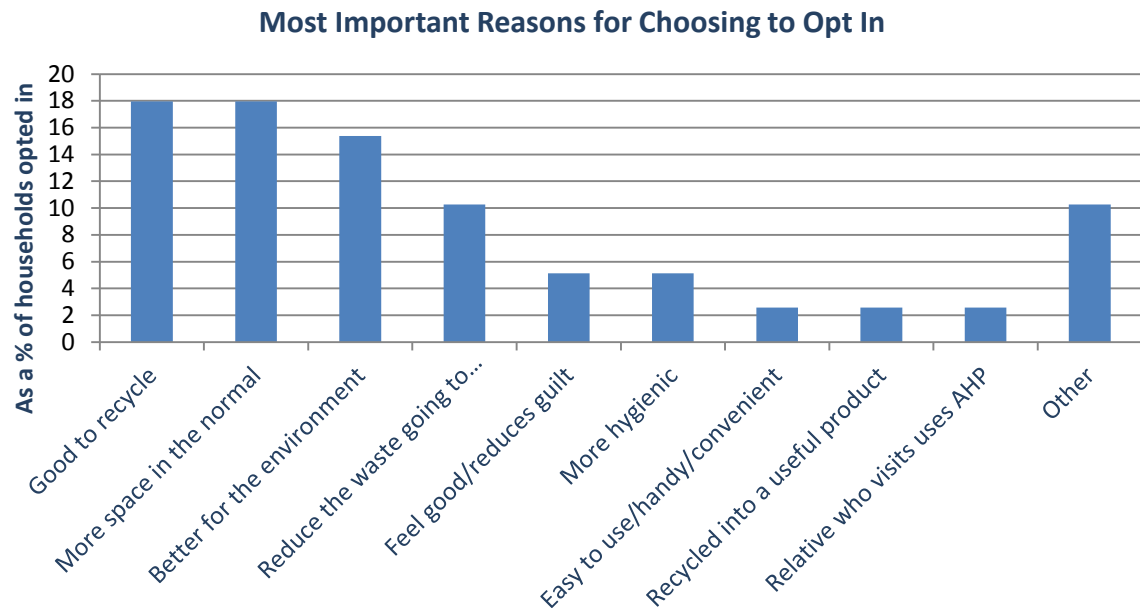


Figure 1.0
Reasons for Choosing to Opt In to the AHP Trial

3.4.2 To what extent the Service Met Respondents' Expectations

Overall the service met householders' expectations. Most respondents who opted in stated that the service was 'Better than expected' (44%) or 'About what [they] expected' (49%). Only 5% said that the service was worse than they expected, as displayed in Figure 1.1.

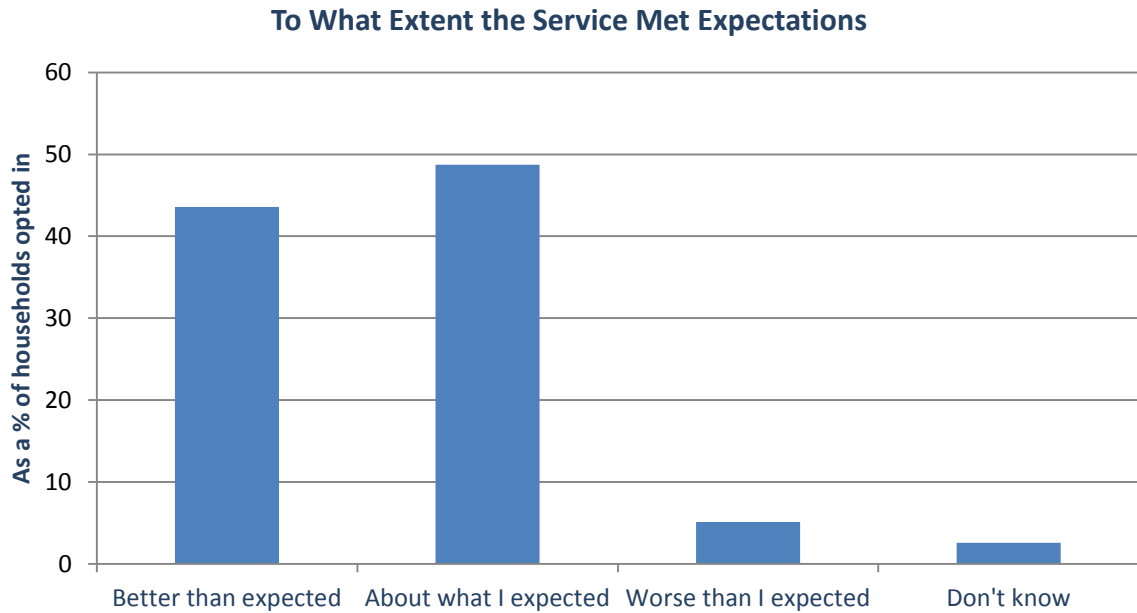


Figure 1.1

To What Extent the Service Met Expectations

3.4.3 Methods of Opting In

By far the most common way people opted in was by phone (74%), as detailed in Figure 1.2.

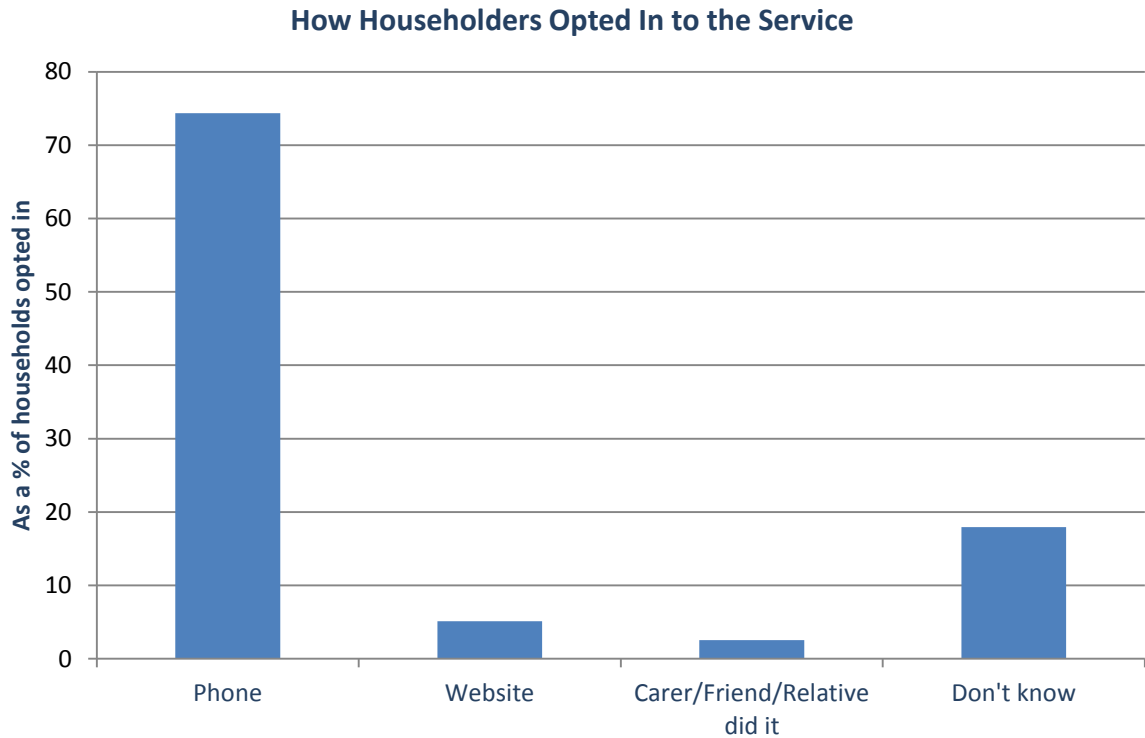


Figure 1.2

How Householders Opted In to the Service

3.4.4 Ease of Opting In

Most people found the opting in process very easy or easy (79%), as displayed in Figure 1.3.

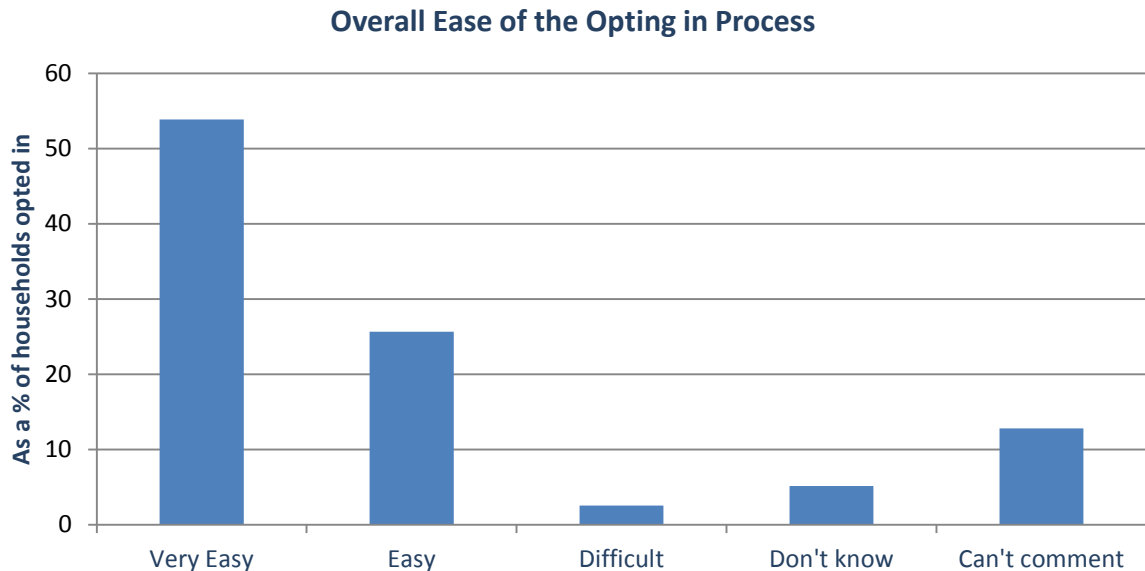


Figure 1.3

Overall Ease of the Opting in Process

When asked what would have made the process easier responses were:

- If the bin was delivered on time (1 householder); and

- Centre refused service said they were out of catchment area (1 householder).

3.4.5 How Householders got Information on How to Use the Service

Most people got information on how to use the service from the leaflet (69%), others found out through word of mouth (13%), as displayed in Figure 1.4.

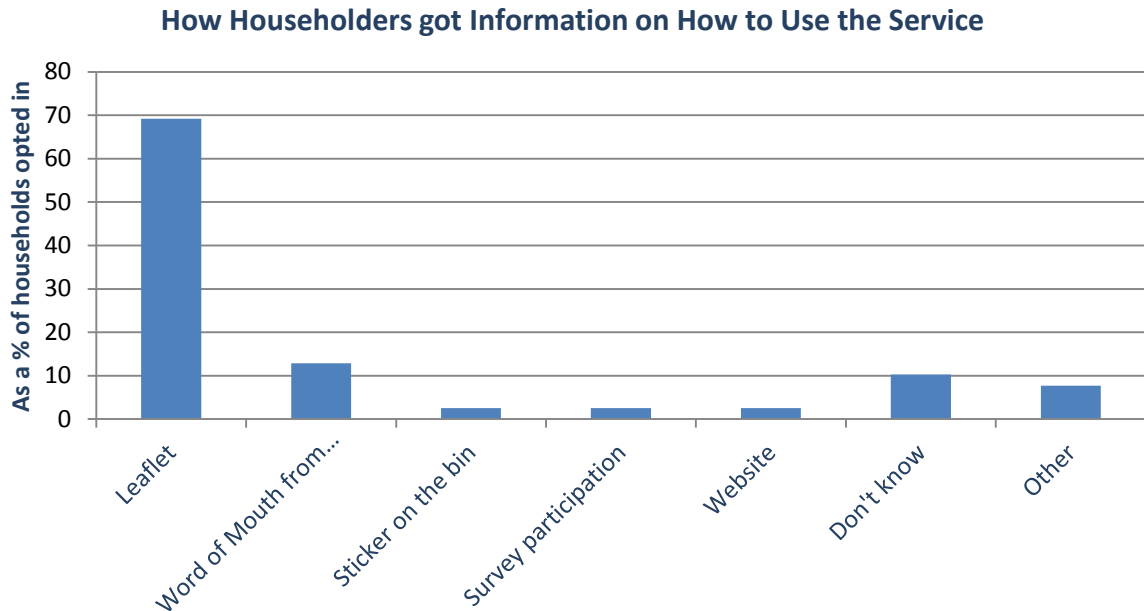


Figure 1.4
How Householders got Information on How to Use the Service

3.4.6 Whether Users Would Recommend the Service to Family and Friends

97% of householders who opted in said that they would recommend the service to family and friends, if it was available where they live.

3.4.7 Overall Summary for Those Who Opted In

- Both environmental benefits and practical reasons appear to have been important in householders' decisions to opt in;
- Most respondents who opted in stated that the service was 'Better than expected' (44%) or 'About what [they] expected' (49%).
- By far the most common way people opted in was by phone (74%);
- Most people found the opting in process very easy or easy (79%);
- Most people got information on how to use the service from the leaflet (69%); and
- 97% of householders who opted in said that they would recommend the service to family and friends.

3.4.8 Service Use of Those Who Opted In

In the following section the households which opted in have been broken down into the following groups:

- Those who opted in but never used the service (1 household; 3%);
- Those who opted in but were no longer using the service (3 households, 8%); and
- Those who continued to use the service until the time of the post trial survey (90%).

3.4.9 Those Who Opted In but Never Used the Service

There was only 1 household in Crieff who opted into the service but never used it; the householder said they would use the service if the need arose again.

3.4.10 Those Who Opted in but were No Longer Using the Service

Of the households which opted in 3 (8%) were no longer using the service.

Reasons provided for not using it anymore were (one response provided by each householder):

- No longer need the service (1 household which had used nappies);
- Embarrassed in putting the bin out (1); and
- Difficult to bring bin to top of building and bags were stolen (1).

When those no longer using the service were asked what would encourage them to use the service in the future, the responses given were:

- Nothing in particular (1);
- Smaller bin (1); and
- Don't know (1).

3.4.11 Those who Continued to Use the Service

The following section refers to the households which opted in and were still using the service at the time of the post-survey, 90%.

3.4.11.1 AHP Sacks Used per Week

The number of tiger sacks used per week by householders is displayed in Figure 1.5.

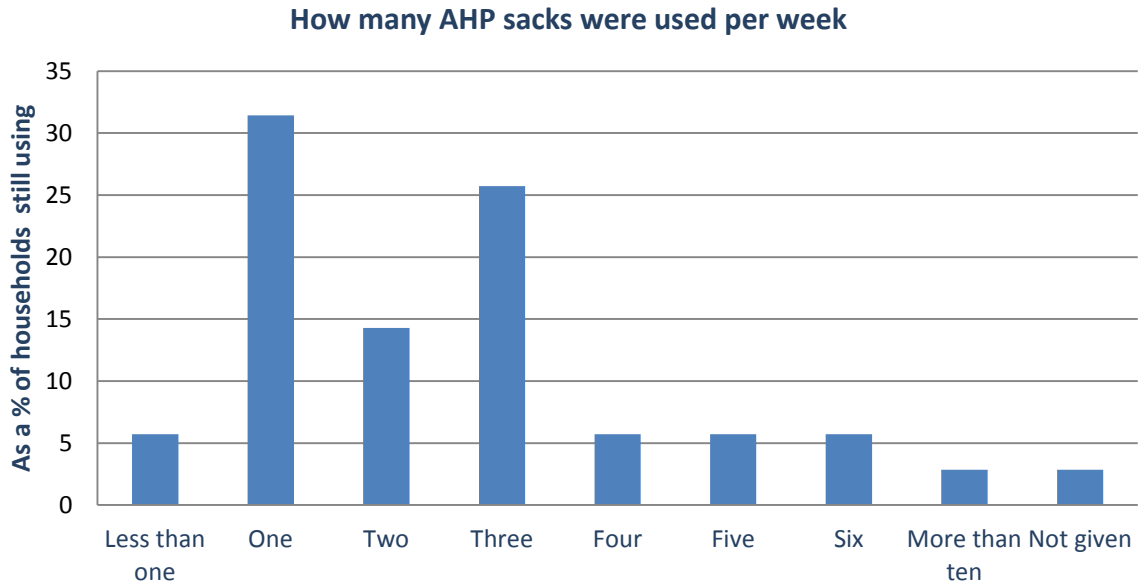


Figure 1.5
Number of AHP sacks used per week

26% of householders used three tiger sacks per week, 51% used less than three.

3.4.11.2 AHP Bin Fill Level against Frequency of Presenting AHP Bin

Most users put the bin out for collection once a week (69%), or once a fortnight (23%), as displayed in Figure 1.6.

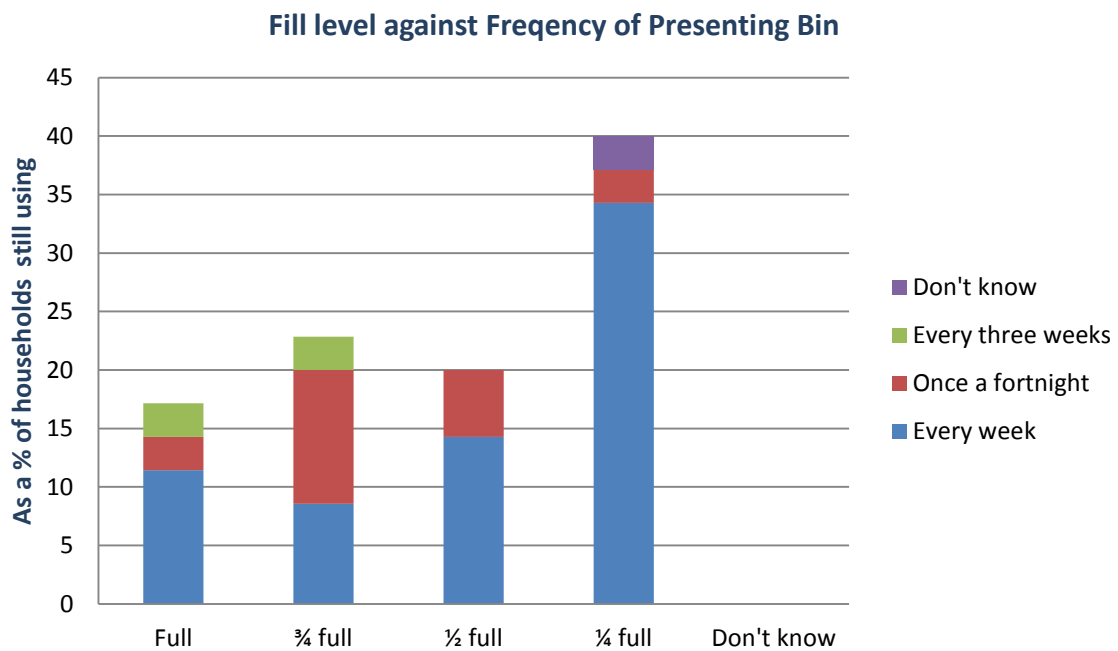


Figure 1.6
AHP Bin Fill Level against Frequency of Presenting Bin

Only 20% of the users who presented their bin weekly said it was 3/4 full to full when they did so, 48% presented their bin every week when their bin was 1/2 full or less. 14% of householders put the bin out fortnightly when it was 3/4 full to full.

3.4.11.3 Fortnightly Collections

77% of households said a fortnightly collection would be sufficient for their households needs, 17% said that it would not and 6% were undecided, as displayed in Figure 1.7.

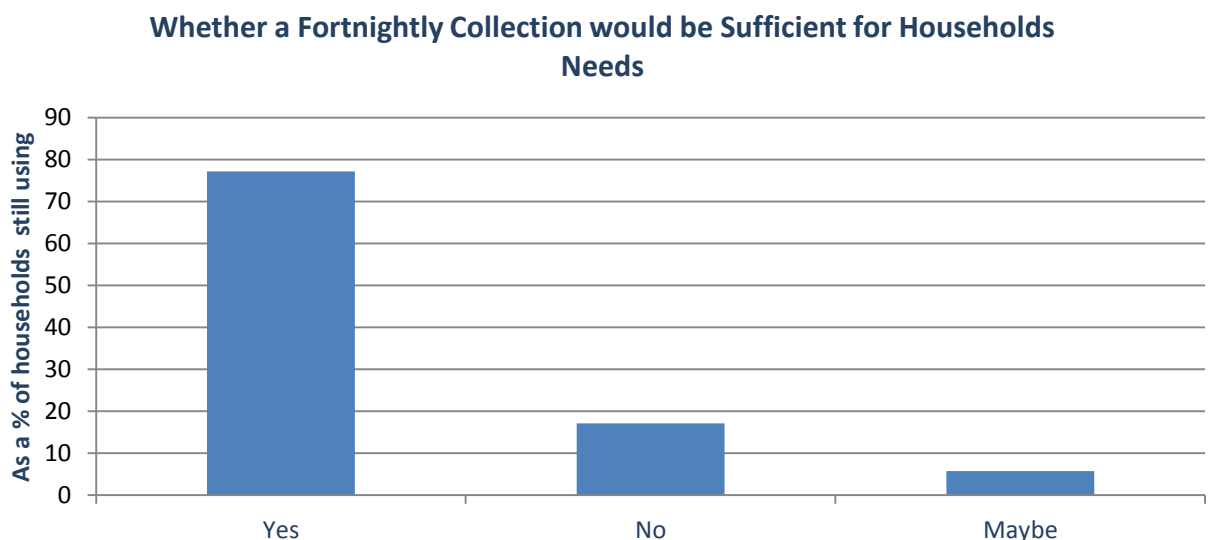


Figure 1.7

Whether a Fortnightly Collection would be Sufficient for Households Needs

3.4.11.4 AHP Bin Usage

The vast majority of householders said that the AHP bin was used for all of their AHP waste at home, this suggests that once people started to use the AHP bin the majority of AHP waste generated in the household was recycled. Only 14% of householders reported using their normal bin for AHP waste sometimes, reasons provided for doing so were:

- If it's easier to put it in the normal bin (9%);
- If I forget (3%); and
- Don't know (3%).

3.4.11.5 Suitability of the AHP Bin

97% of households still using the service said that the bin was suitable for collecting their AHP waste. When asked what they liked about the bin the responses were:

- Good size (31%);
- Nothing in particular (29%);
- Easy/convenient to use (23%);
- Hygienic (14%);
- Light weight (9%);
- Was streamline/didn't take up much room (6%);
- Kept the waste out of the other bin (6%);
- Wheels (3%);
- Frequent collection (3%); and
- Colour (3%).

3.4.11.6 Suggested Improvements to the AHP Bin

97% householders had no suggestion as to how to improve the AHP bin. Only one householder gave the suggestion of a bigger bin (1 householder; 3%);

3.4.11.7 Bin Storage

All users kept the AHP bin outside or in a shed/garage.

3.4.11.8 Suitability of the AHP Sacks

86% of households still using the service said that the sacks were suitable for collecting their AHP waste. When asked what they liked about the sacks the responses were:

- Nothing in particular (31%);
- Very strong (20%);
- Hygienic (11%);
- Convenient to use (6%);
- Don't know (6%);
- Good size (6%);
- Good Colour (3%);
- Keeps nappies together (3%); and
- Kept the waste out of the other bin (3%).

3.4.11.9 Problems Experienced with the Sacks

The majority of users reported that they had experienced no problems when using the service, 23% reported the following problems:

- Too big (9%);
- Too small (9%);
- Sack difficult to tie (6%); and
- Ran out (3%).

3.4.11.10 Suggested Improvements to the AHP Sacks

74% householders had no suggestion as to how to improve the AHP sacks. The most common suggestion was for ties for the sacks:

- Ties for the bags (23%);
- Smaller sacks (3%); and
- Bigger sacks (3%).

3.4.11.11 AHP Bin and Sack Summary

Key points:

- 77% of householders used three tiger sacks or less per week;
- Most users put the AHP bin out for collection once a week (69%), regardless of their fill level;
- Only 20% of the users who presented their bin weekly said it was full when they did so;
- While 77% said a weekly collection would be sufficient for their household's needs a substantial proportion (17%) said it would not be;
- The vast majority of householders (86%) said that they used the bin for all of their AHP waste when they were at home;
- 97% of householders said the AHP bin was suitable for collecting their AHP waste; and
- 86% of householders said the AHP sacks were suitable for collecting their AHP waste.

3.4.12 Benefits of Using the Service and Reasons for Opting In

Benefits identified with using the service were similar to reasons why householders had chosen to opt in. For those still using the service the primary benefit mentioned was that it ‘reduces waste in the normal bin’ (43%), this is similar to the percentage of those who provided it as a reason for initially opting in (31%), as displayed in Figure 1.8.

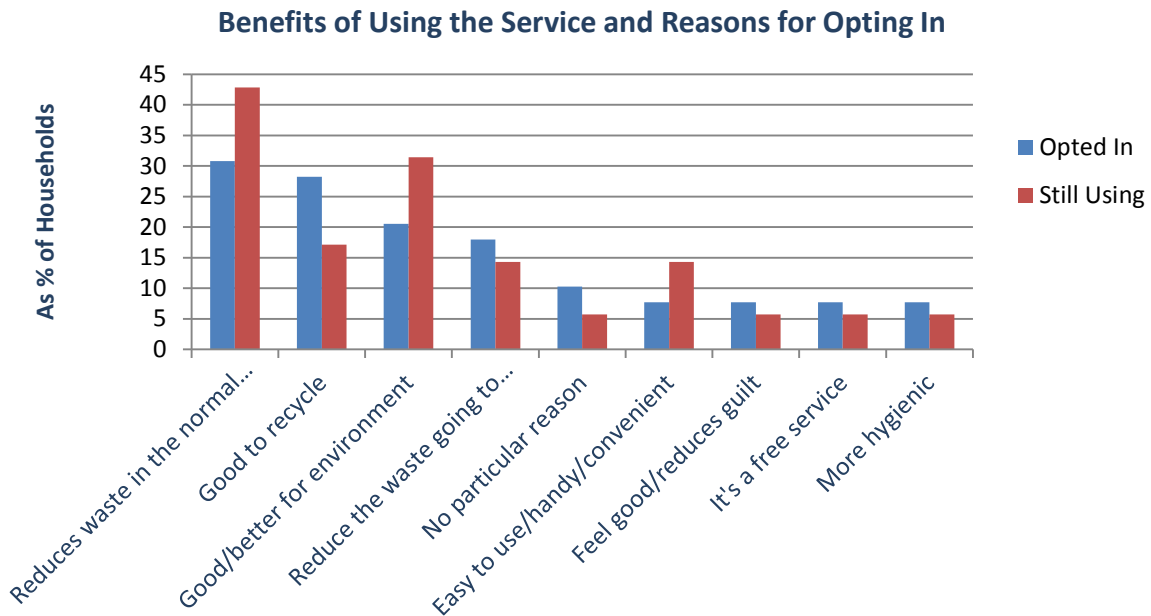


Figure 1.8

Benefits of Using the Service and Reasons for Opting In

The environmental benefits ‘Good to recycle’, ‘Good/better for the environment’ and ‘Reduces waste going to landfill’ were mentioned at least once by 54% of householders²². This suggests that the recycling aspect of the service was important to the public and householders were not solely motivated by having more space in their normal bin.

²² In Figure 1.8 householders were allowed to provide multiple responses.

3.4.13 Ease of Use of the Service

The vast majority of people still using the service rated it as easy or very easy to use (97%), as displayed in Figure 1.9.

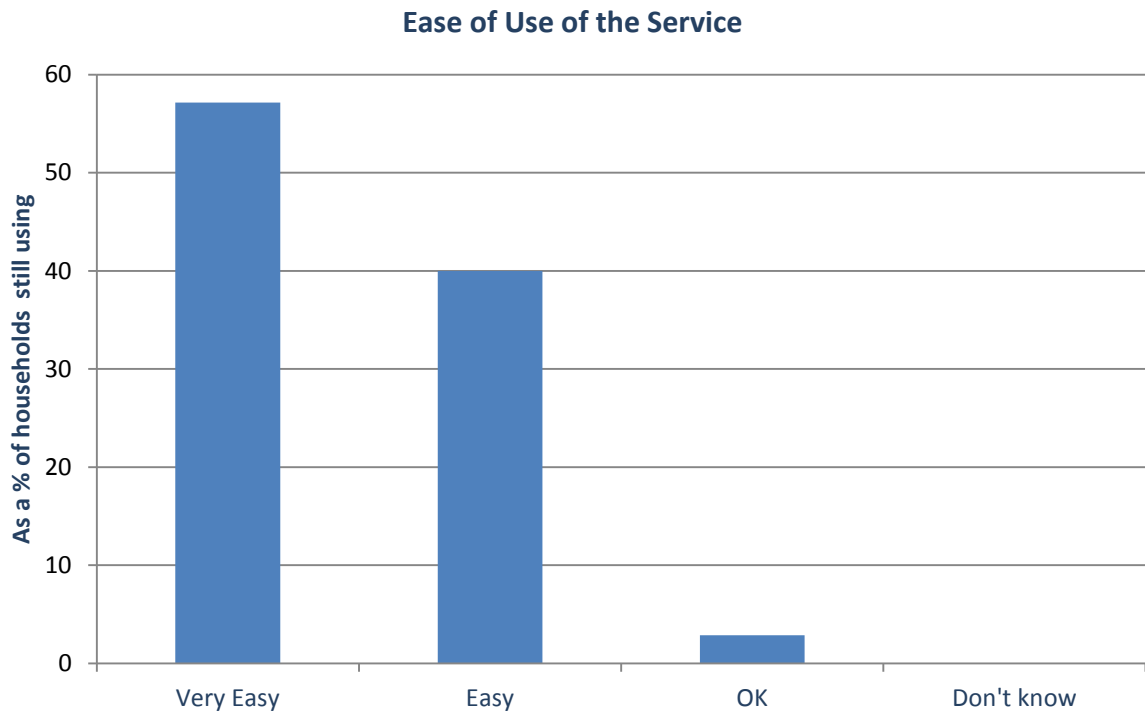


Figure 1.9

Ease of Use of the Service

3.4.14 Service Satisfaction

Satisfaction with the service was exceptionally high, with all householders being very satisfied or satisfied with this, as displayed in Figure 1.10.

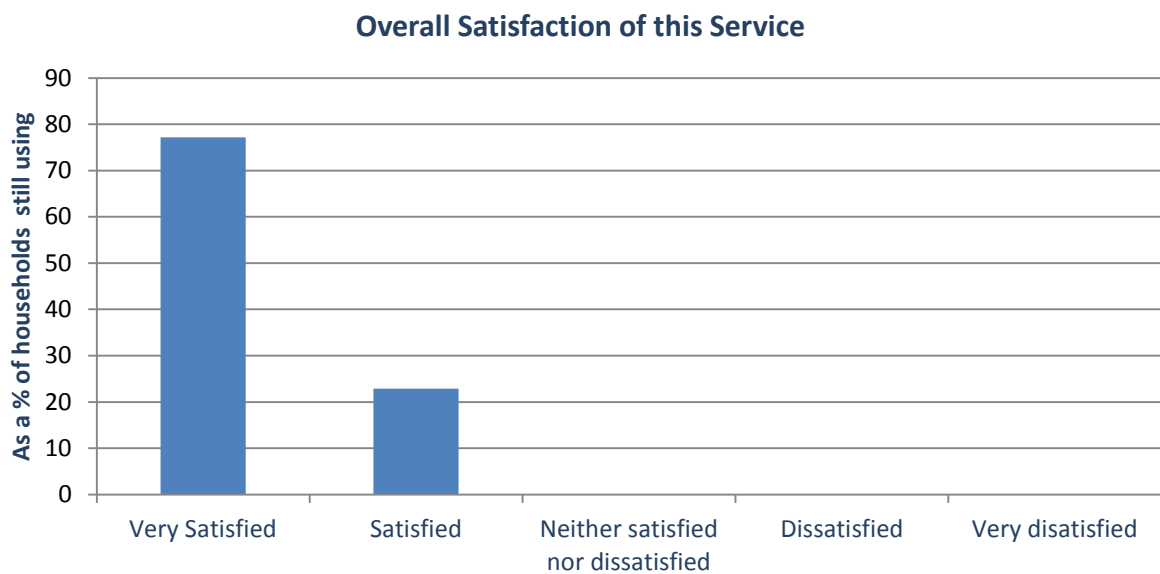


Figure 1.10

Overall Satisfaction with the Service

3.4.15 Problems when Using the Service

The majority of householders (89%) did not report any problems when using the service. Issues mentioned by the remaining 11% of householders were:

- Council didn't pick up the bin on time (6%);
- Collection on a Saturday (3%); and
- Bin blowing over (3%).

3.4.16 Whether Users would Opt In to the Service if it was Offered on a Permanent Basis

100% of those still using the service said that they would opt into the service if it was offered on a permanent basis. This clearly demonstrates the popularity of this trial.

3.4.17 Summary for Those Still Using the Service

- Householders appear to be motivated to use the service because of recycling and by having more space in their normal bin;
- 97% of householders still using the service rated it as easy or very easy to use;
- Satisfaction with the service was extremely high, with all householders being either very satisfied or satisfied;
- The majority of householders (89%) did not report any problems when using the service; and
- All of those still using the service said that they would opt into the service if it was offered on a permanent basis.

3.5 Those who had Not Opted In

The following section refers to those householders who did not opt in to the trial service. NB: All households had been using AHP at the time of the pre-survey.

3.5.1 Reasons for Not Opting in

The following reasons were given for not opting into the service:

- Didn't have the need (1 householder);
- Forgot to opt in (1 householder); and
- Bin wasn't delivered (1 householder).

There were no responses that indicated that the householders did not like the concept of the service.

3.5.2 Encouragements to Use the Service

Those who did not opt in were asked what would have encouraged them to opt in and the responses were:

- Don't know (1 householder);
- If I have the need (1 householder); and
- Nothing (1 householder).

3.6 Communications

Perth and Kinross Council sent a leaflet to every property in the trial area to introduce the New AHP Recycling Service. Other activities included:

- Leaflets were distributed within the area in order to raise local awareness and encourage uptake (distributed to all households);
- Posters were distributed amongst local businesses, health centres, pharmacies, nurseries and community centres;
- Discussions took place with the shop-owners, librarians, pharmacists and health workers to ensure they were aware of the recycling service and understood its operation;
- Decals were placed on AHP bins which showed householders what could go into the bin (for those who opted in); and
- Postcards were delivered to each household to reinforce how to use the service (for those who opted in).

The following section refers to all of the households which opted in to use the service.

3.6.1 Awareness of the AHP Trial

The leaflet was most effective at raising awareness of the AHP trial, 55% of householders became aware of the service from this. 21% became aware through word of mouth and other responses are displayed in Figure 1.11.

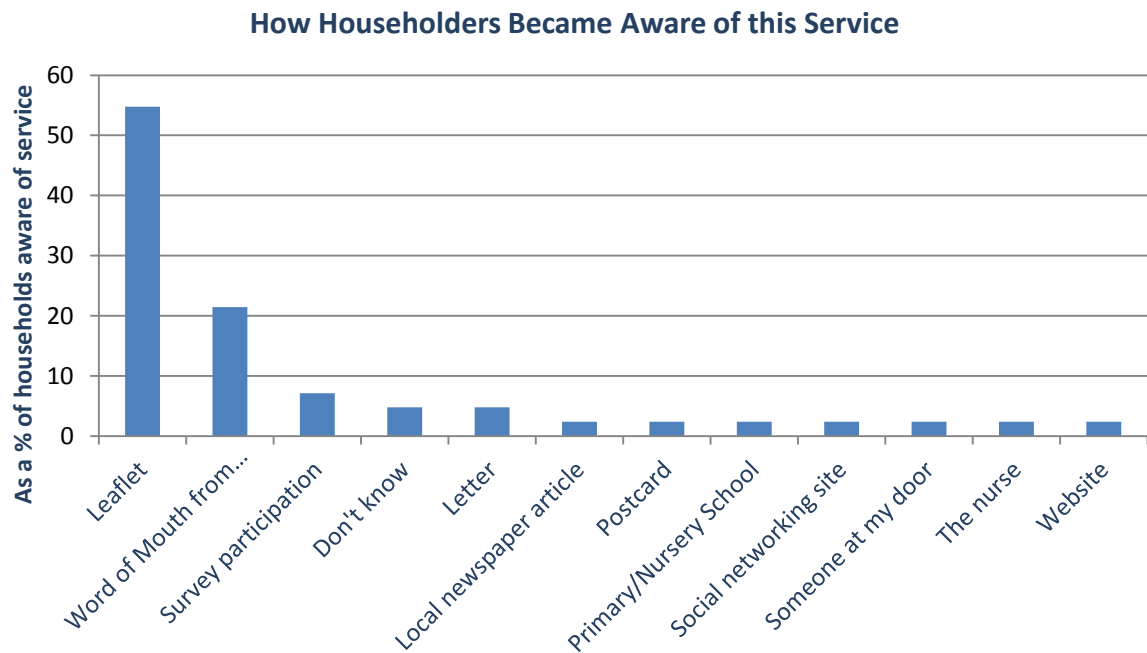


Figure 1.11
How Householders Became Aware of this Service

3.6.2 Communication Materials

3.6.2.1 Leaflet

76% of the households said they had received a leaflet through the door about the trial. When prompted with the leaflet this increased to 83%. Of these 80% agreed with the statement “The leaflet told me everything I need to know”, 6% disagreed and 14% householders didn’t know or could not remember.

40% householders who received the leaflet kept it for future reference, 37% did not and a further 23% did not know or could not remember.

3.6.2.2 Poster

6% of householders said they had seen a poster about AHP Recycling. When prompted with the poster this remained the same. The posters were seen at the following locations:

- Doctors (5% of all households);
- Community Centre (2%);
- Library (2%);
- Primary/Nursery School (2%); and
- Don’t know (2%).

3.6.2.3 Presentation

10% of households said that someone had spoken to them about the new service. This took place by the following methods:

- Someone came to the door (7%); and
- Word of Mouth from friend/family/neighbour/colleague (3%).

3.6.2.4 Bin Decal

36% of households who opted in said they had seen a sticker on their AHP container, 100% of them found the sticker useful.

3.6.2.5 Postcard

19% of all households said they had received a postcard about the trial. When prompted with the postcard this increased to 29%. All who received the postcard agreed with the statement “The postcard told me everything I need to know”.

3.6.3 Recycling Nappies/Incontinence Products is Good for the Environment

All of householders agreed or strongly agreed with the statement “Recycling nappies/Incontinence Products is Good for the Environment”, as displayed in Figure 1.12.

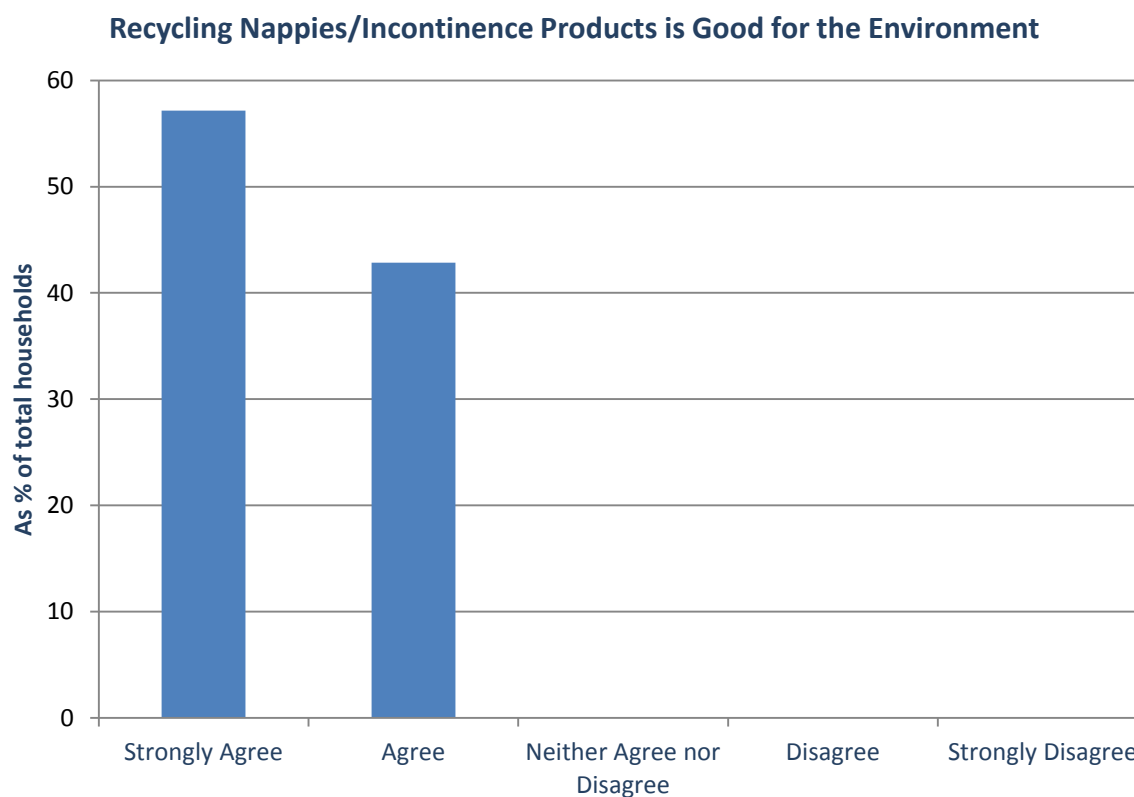


Figure 1.12
Recycling Nappies/Incontinence Products is Good for the Environment

3.6.4 Knowledge of What AHP Products can be Recycled into

Although about 54% of householders who opted in appeared to be motivated by recycling or other environmental benefits, knowledge of what AHP products can be turned into was very poor with only 19% of household providing a correct answer. 71% of householders responded with ‘don’t know’. Recall of correct and incorrect materials is listed below:

- Benches (10%);
- Garden furniture (7%);
- Cardboard (2%);
- Decking (5%);
- Other (10%).

3.6.5 Further Comments and Opinions on the AHP Trials

All householders were asked if they had any further comments they would like to make about the AHP trial in Crieff. Further comments were made by 36% individuals. There were many positive comments, 19% said that it was and good service/idea and/or the hope it continues.

Appendix 12 – Perth & Kinross Council (Auchterarder) AHP Pre-Trial Survey

Perth and Kinross Council: Auchterarder

AHP Pre Trial Survey

June 2012

Report Submitted to Zero Waste Scotland

1.0 Introduction: The Trial Scheme

Households who opt in to the Absorbent Hygiene Product trial scheme in Auchterarder will receive a new recycling bin with a free 6 month supply of blue recycling sacks. The householder will then be asked to line the recycling bin with a sack and place the used products in the sack. Once each blue recycling sack is full, they should be tied securely. The recycling sacks should then be placed at the normal bin collection point by 7:30 am every Saturday. The recycling sacks will be collected every week by Perth and Kinross Council.

2.0 Methodology

250 households were surveyed across the three trial areas within Perth and Kinross: Auchterarder, Crieff and Tulloch in Perth, in order to obtain a statistically representative sample of housing type and age demographics; as detailed in Table 1.

Table 59
Survey Plan Showing Property Type and Age Demographics for all Three Trial Areas in Perth and Kinross

	Housing Type Profile				Total Surveys	Age Group Profile			
	Detached	Semi	Terr	Flat		18-29	30-44	45-59	60+
Total	105	72	73		250	47	55	66	83
Auchterarder	43	18	18		79				
Crieff	55	33	22		110				
Tulloch	7	21	33		61				

3.0 Results

3.1 AHP Potential Capture

All of the results unless stated otherwise are from those households who are currently using AHP products at home. The AHP usage in Auchterarder and the number of projected households that could be involved in the trial based on the survey results and applying this using the Scottish Census 2001 figures are outlined:

- The total number of households eligible to receive the service within the Auchterarder trial area is 1,384;
- 10% of those households currently used AHP products; therefore the projected number of households who could potentially participate in the trial was 138 households;
- Of those potential households 100% indicated they would be willing to use the service which means that 138 households could potentially opt in to the service in Auchterarder; and
- 138 recycling containers and 17,992 blue recycling sacks would therefore be required for the 6 month trial period in Auchterarder if each household uses 130 sacks (5 per week).

This represents the upper-estimate for the number of households who would opt in to this AHP-recycling service. This is the figure which was provided to the Local Authority for planning the infrastructure requirements.

- Of the 10% AHP users in Auchterarder; 75% were nappy users and 25% were incontinence product users;
- 67% of the nappy users used disposable nappies, and 100% of these indicated they would be willing to use the service. This indicated that a total of 69 nappy using households would potentially opt in to the service;
- 100% of the Incontinence Product users indicated they would be willing to use the service; indicating that a total of 35 incontinence product using households would potentially opt in to the service.
- This equates to 104 potential households that could opt in to the service rather than the 138²³; and
- Of the 10% AHP users in Auchterarder 63% also used Female Hygiene Products; and of those 100% were willing to use the service to recycle these products; equating to 87 households.

3.1.1 Disposable Nappy Capture

The average number of disposable nappies used per household per day was 5. If all 69 households who indicated they would be willing to use the service opted in; this would equate to 345 nappies per day; 2,415 per week and 62,790 disposable nappies for the 6 month trial period.

Some households stated they also used and disposed of nappy sacks and wet wipes on a daily basis in addition to disposable nappies as displayed in Figure 1.

²³ This is due to the figures being rounded, and due to real nappy usage, and one unknown.

Proportions of Sizes and Types of Disposable Nappies and Other Associated Items

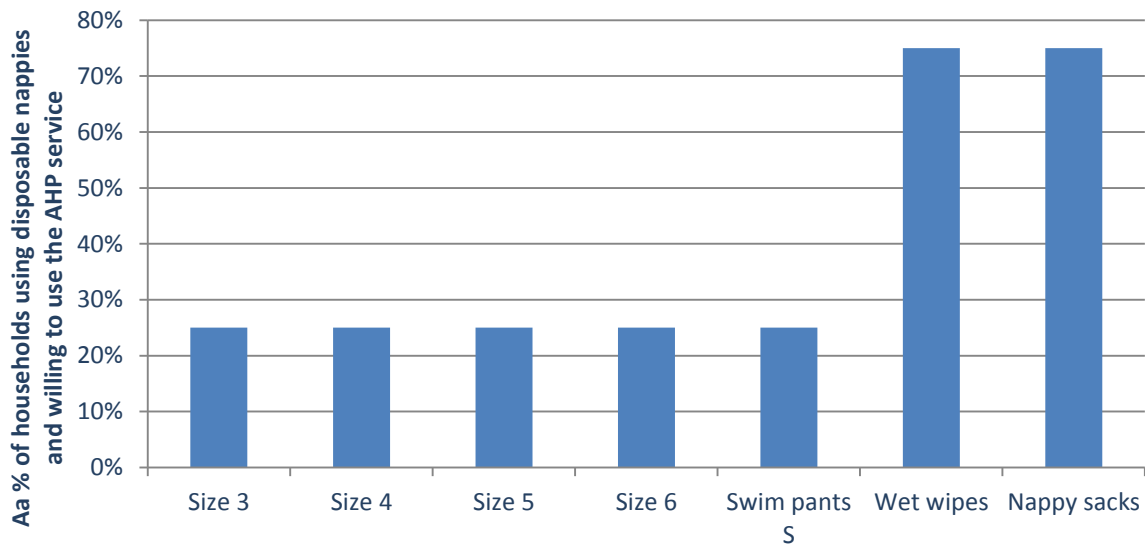


Figure 1

Sizes and Types of Disposable Nappies and Other Items Disposed of by the AHP Users in Auchterarder Willing to Use the Service

3.1.2 Incontinence Product Capture

The average number of incontinence products used per household per day was 6. If all 35 households who indicated they would be willing to use the service opted in; this would equate to 210 incontinence products per day, 1470 per week and 38,220 for the 6 month trial period.

3.1.3 Female Hygiene Product Capture

The average number of female hygiene products used per household was not recorded as part of the survey. The main types of female hygiene products used by the AHP Users willing to take part in the trial are displayed in Figure 2.

Proportions and Types of Female Hygiene Products Used

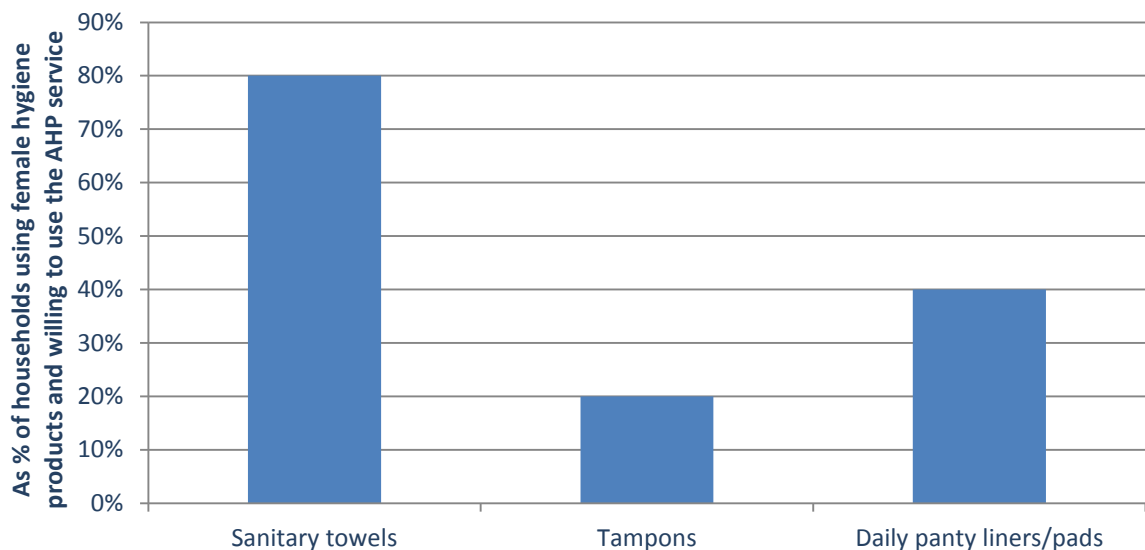


Figure 2
Proportions and Types of Female Hygiene Products Used by AHP Users willing to use the AHP Service in Auchterarder

3.2 Acceptability of Proposed Service

100% of current AHP users in Auchterarder indicated they would find the service either acceptable (37%) or very acceptable (63%).

3.3 Willingness to Use the Service

100% of households indicated they were willing to use the service in Auchterarder.

3.4 Benefits of Using the Service

The key benefits of this new service identified by householders in Auchterarder are presented in Figure 3. The main responses given were that it would reduce waste in the normal bin, reduce waste going to landfill, as well as being generally beneficial to the environment.

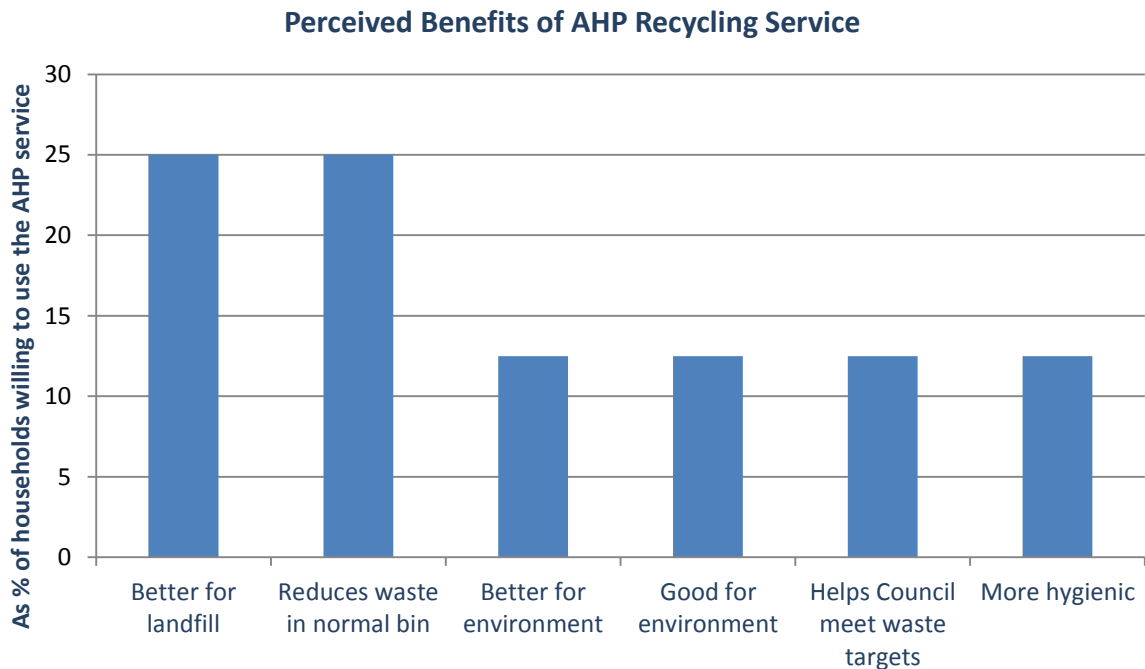


Figure 3
Perceived Benefits of AHP Recycling Service among the AHP Users Willing to Use the Service in Auchterarder

3.5 Perceived Concerns

Only one household expressed concern and this was in relation to smell.

3.6 Communication and Information Requirements

Households were asked a series of questions to identify what the most suitable type and form of communications should be to encourage them to use this new recycling service.

3.6.1 Information Requirements

Approximately 75% of households suggested types of information that would help them to effectively recycle their AHP products; as detailed in Figure 4.

The main types of information requested focused on the practical use of the new service; the description of the service and how to use it, what AHP materials could be recycled, what the products from the process were, and how they would be used.

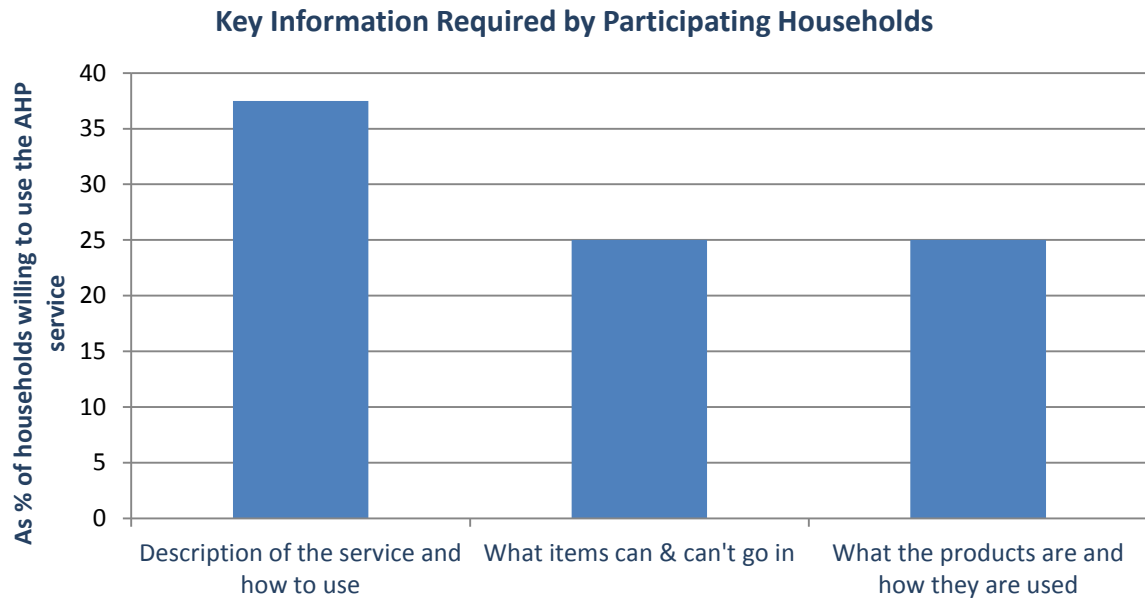


Figure 4

Information Required by Households Currently Using AHP in Auchterarder

Other comments included that people should be given a collection calendar, or the collection times, information about the environmental benefits, an explanation of the term Absorbent Hygiene Products, and information on how the AHP products were recycled.

3.6.2 Key Messages

When asked what the key messages should be to encourage the public to participate in this new AHP-recycling service; households primarily focused on the environmental benefits as displayed in Figure 5.

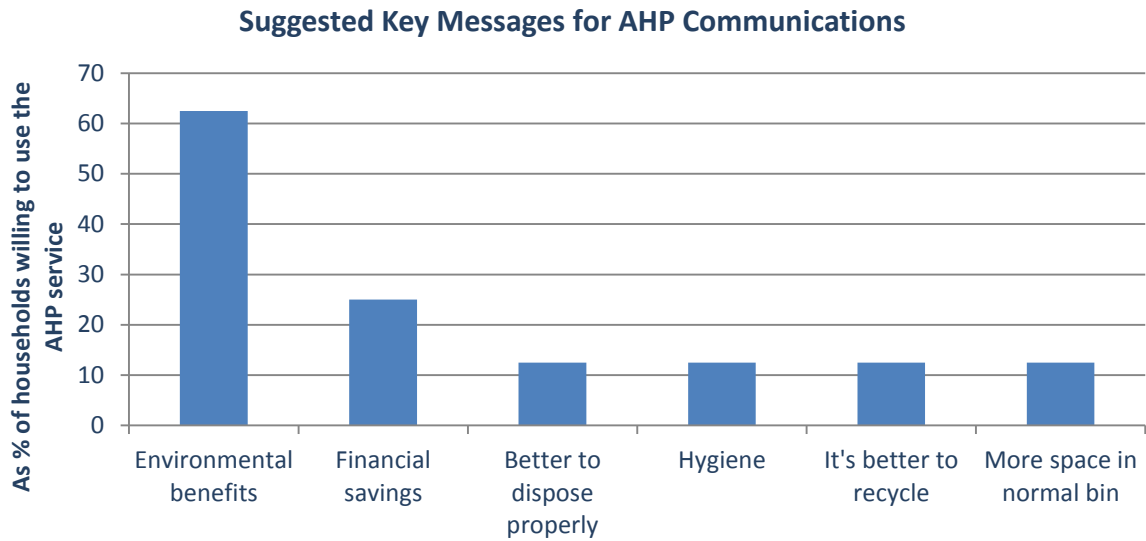


Figure 5
Key Messages Identified from Households Using AHP and Willing to Use the Service in Auchterarder

3.6.3 Preferred Communication Formats

Households were asked what forms of communication they would prefer to receive information about the new AHP service; in addition to an introductory leaflet. The majority of people did not have a preference (88%). The Council’s website was suggested by one person as an additional method that could be used.

3.6.4 Community Engagement Opportunities

When asked to identify other community groups, organisations or opportunities for wider community engagement for the AHP-recycling schemes, 51% of people did not respond. The most common suggestions identified by the remaining households were Mother and Toddler Groups (25%), Community Nurses (25%); Churches (25%); Playgroups (25%), Nurseries (25%); and Local Radio (25%).

3.7 Further Comments and Opinions for the AHP Trials

All householders were asked if they had any further comments they would like to make about the proposed AHP trial in Auchterarder. 3% provided comment; none of which were specifically relevant to the AHP trial; they focused on the Council’s existing services.

3.8 Opinion of the AHP Trials among the Non-AHP Users

Households who were not currently using AHP were asked to give their opinions on the overall acceptability of the scheme as well as the perceived concerns and benefits. The overall acceptability was lower at 90% compared with 100% of those using AHP.

The key concern identified by the Non-AHP Users were the same as recorded with the AHP users; of potential smells associated with the service.

The benefits of recycling AHP identified by both the AHP and Non-AHP users again were similar. The primary benefit recognised by both related to the benefits to landfill, and the more general environmental benefits. However the benefit of a reduction in waste going to the

residual bin was more commonly recalled by the AHP Users; 25% compared to 15% with the Non-Users.

Appendix 13 - Perth & Kinross Council (Auchterarder) Community Engagement Record

Community Engagement Record				
Date	Area	Location	Leaflets (Quantity)	Posters (Quantity)
04/07/2012	Auchterarder	Cheeky Monkeys Nursery	15	2
04/07/2012	Auchterarder	Community Church Centre	5	
04/07/2012	Auchterarder	Parkdale Day Care Centre	5	
04/07/2012	Auchterarder	St Margarets Hospital	10	2
04/07/2012	Auchterarder	Leisure Centre	15	2
04/07/2012	Auchterarder	Library	10	1
04/07/2012	Auchterarder	St Margarets Health Centre	20	1
12/07/2012	Auchterarder	Iona Designs Shop	1	
12/07/2012	Auchterarder	Indulge Café	6	
12/07/2012	Auchterarder	Davidsons Chemist	10	
12/07/2012	Auchterarder	James Urquhart Ironmongers		1
12/07/2012	Auchterarder	Catherines Shop	4	
12/07/2012	Auchterarder	The Florist in Auchterarder	6	
12/07/2012	Auchterarder	Kiddie Kouture Shop	3	
12/07/2012	Auchterarder	Ellie's Cellar	5	1
12/07/2012	Auchterarder	Hair Plus Hairdresser		1
12/07/2012	Auchterarder	Cocoa Mountain Café		1
12/07/2012	Auchterarder	Design Floor Studio	1	1
12/07/2012	Auchterarder	Spar		1
12/07/2012	Auchterarder	Thyme Out Beauty and Holistic Therapies		1
12/07/2012	Auchterarder	McCallums Butcher		1
12/07/2012	Auchterarder	Alexa Dunlop Shop	1	1
12/07/2012	Auchterarder	Sandy McChesney Dentist	10	1
12/07/2012	Auchterarder	Lloyds Pharmacy	10	1
12/07/2012	Auchterarder	Tiny Touch Childrens Wear	6	1
12/07/2012	Auchterarder	RS Erskine and Co Shop	4	
12/07/2012	Auchterarder	Jan de Vries Herbal Medicine	7	
12/07/2012	Auchterarder	News Plus		1
12/07/2012	Auchterarder	Number 57 Hairdresser	8	1
28/08/2012	Auchterarder	Tots playgroup	4	1
28/08/2012	Auchterarder	Community School	6	2
28/08/2012	Auchterarder	Ochill Tower School	3	1

175

24

Appendix 14 - Perth & Kinross Council (Auchterarder) AHP Post-Trial Survey

Perth and Kinross Council - Auchterarder

AHP Post Trial Survey

May 2013

Report Submitted to ZWS

3.0 Auchterarder Results

3.1 Information on the AHP Trial Scheme in Auchterarder

Households who opted in to the Absorbent Hygiene Product trial scheme in Auchterarder received an 87L recycling container with a free 6 month supply of 80L blue recycling sacks. The householders were asked to line the recycling bin with a sack and place the used products inside the sack. Once each blue recycling sack was nearly full, they were to be tied securely and placed at the normal bin collection point by 7:30 am every Saturday for collection.

The actual number of surveys carried out in Auchterarder was 40, 38 of the householders had opted in and 2 had not. This number allowed for a statistically robust sample with a confidence of 95% for those households who opted in and those who did not.

The following section refers to findings from the AHP Post Trial Survey.

3.2 Survey Profile

The survey profile for Auchterarder is displayed in Table 1.0.

Table 1.0
Survey Profile

	Number of Households Opted In	Number of Households Who Did Not Opt In
Nappies	27	0
IC	8	1
Both	0	1
None	3*	0
Total	38	2

**Opt ins who were not using AHP can be explained by those households who were no longer using AHP and is explored later in this report.*

In this report the households have been categorised into the following groups

- Those who did not opt in;
- Those who did opt in;
 - Those who opted in but never used the service;
 - Those who opted in but were no longer using the service; and
 - Those who continued to use the service.

3.5 Those Who Had Opted In

The following section refers to all of the households who had chosen to opt in.

3.5.1 Reasons for Opting In

Both environmental benefits and having more space in the normal waste bin appear to have been important in householders' decisions to opt in, as detailed in Figure 1.0.

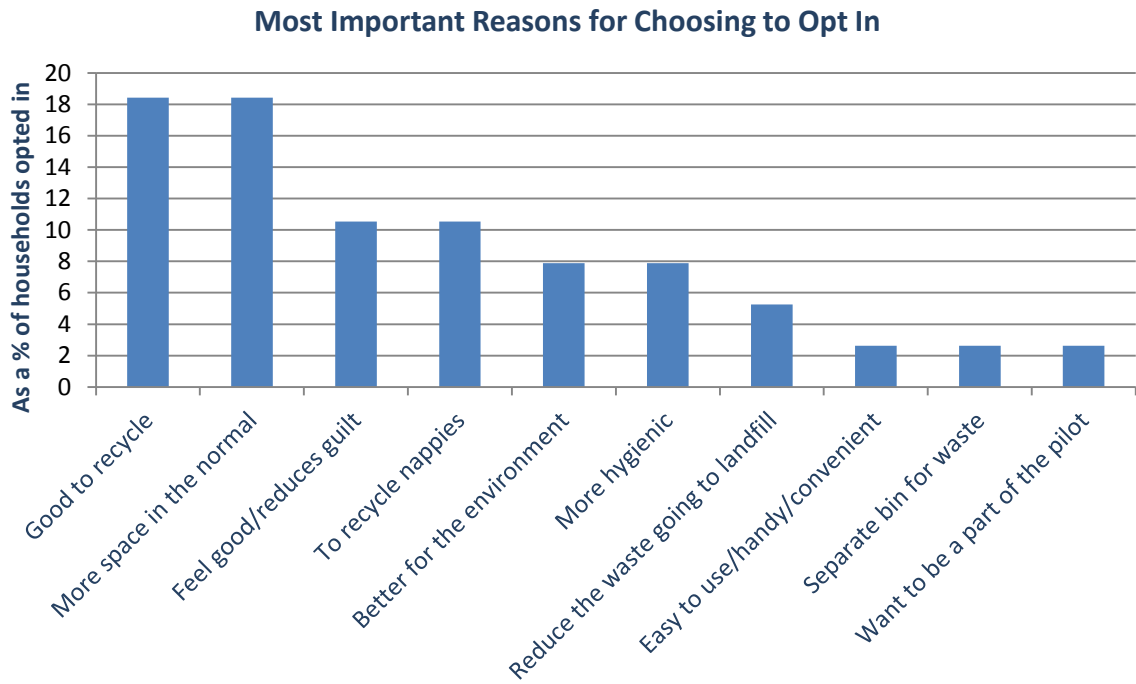


Figure 1.0
Most Important Reasons for Choosing to Opt In to the AHP Trial

3.5.2 To what extent the Service Met Respondents' Expectations

Overall the service met householders' expectations. Most respondents who opted in stated that the service was 'Better than expected' (32%) or 'About what [they] expected' (58%). Only 5% said that the service was worse than they expected, as displayed in Figure 1.1.

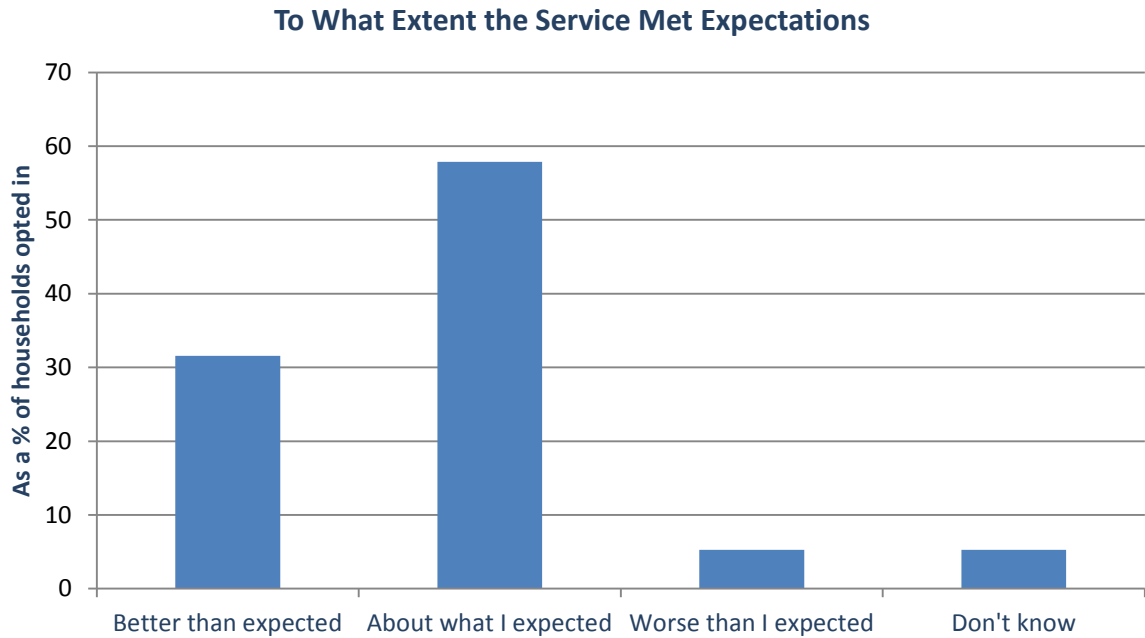


Figure 1.1

To What Extent the Service Met Expectations

3.5.3 Methods of Opting In

By far the most common way people opted in was by phone (79%), 13% of respondents said that a carer, friend or relative did it for them, as detailed in Figure 1.2.

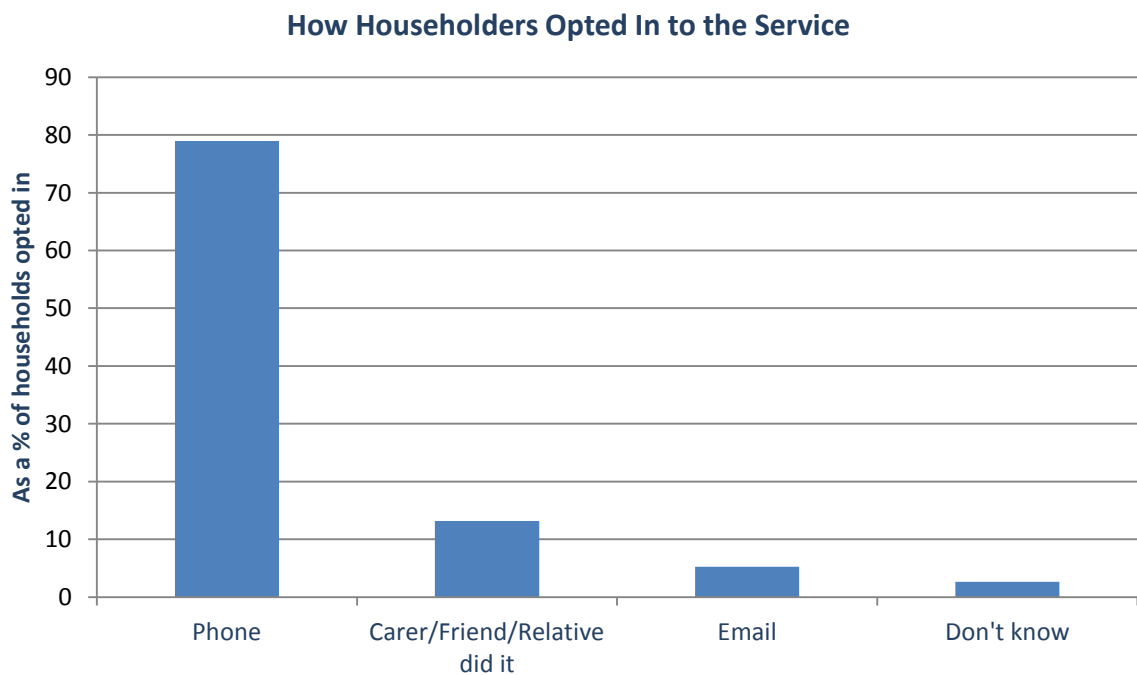


Figure 1.2

How Householders Opted In to the Service

3.5.4 Ease of Opting In

Most people found the opting in process very easy or easy (82%), as displayed in Figure 1.3.

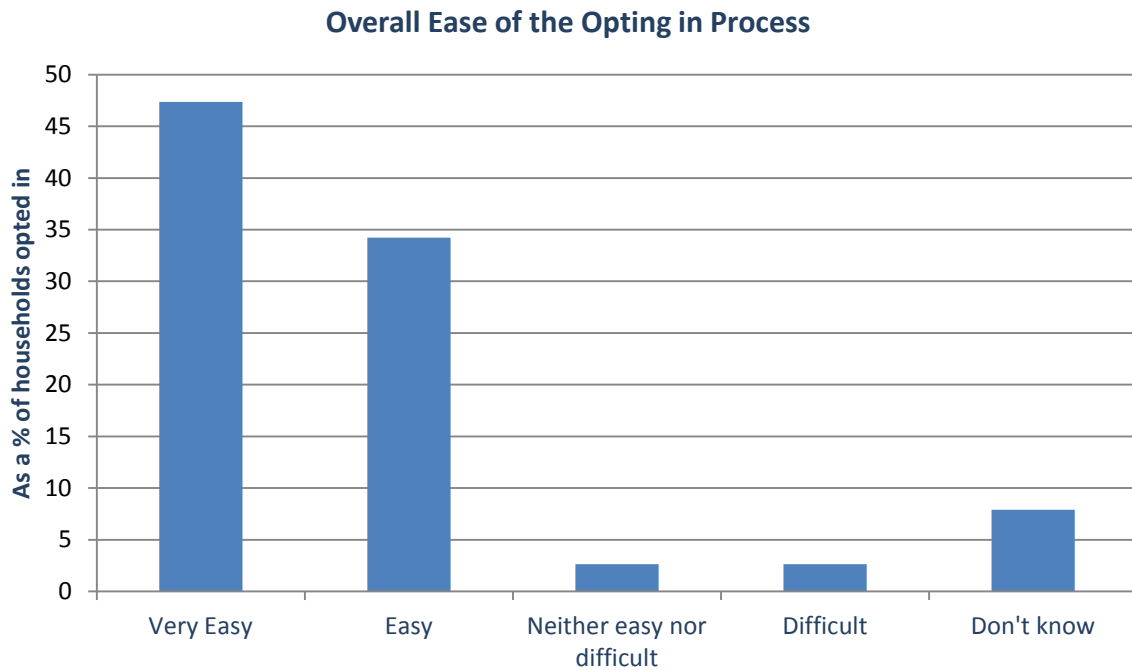


Figure 1.3
Overall Ease of the Opting in Process

When asked what would have made the process easier responses were:

- If the bin was delivered on time (2 householders);
- More information on start date (1 householder); and
- Fewer delays (1 householder).

3.5.5 How Householders got Information on How to Use the Service

Most people got information on how to use the service from the leaflet (68%), others found out by phone (8%) or letter (8%), as displayed in Figure 1.4.

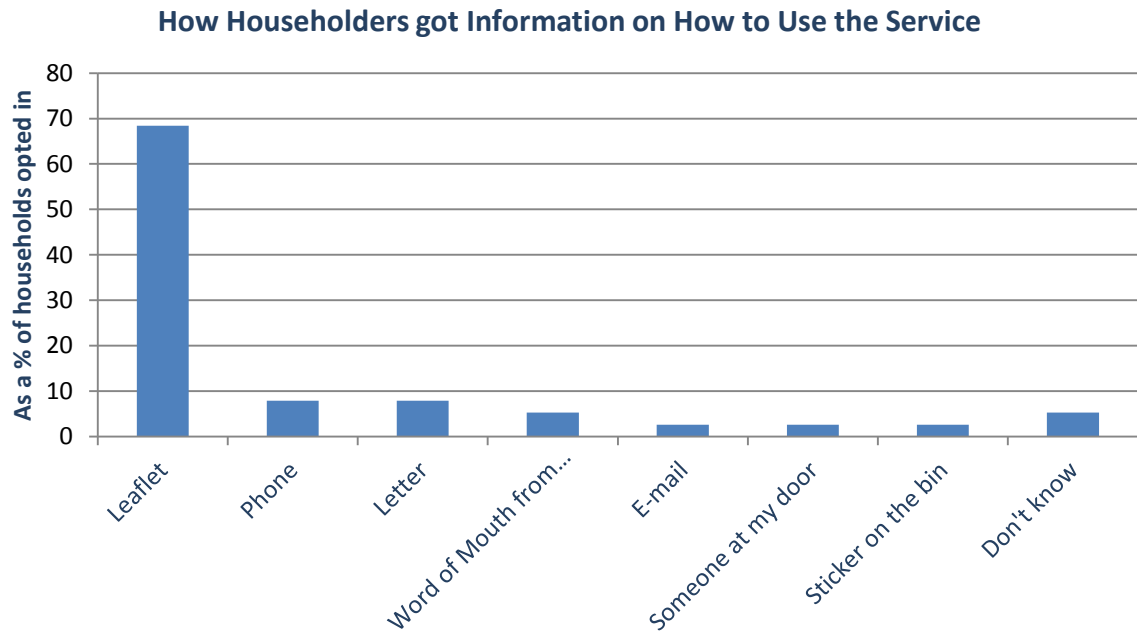


Figure 1.4
How Householders got Information on How to Use the Service

3.5.6 Whether Users Would Recommend the Service to Family and Friends

97% of householders who opted in said that they would recommend the service to family and friends, if it was available where they live.

3.5.7 Overall Summary for Those Who Opted In

- Both environmental benefits and practical reasons appear to have been important in householders’ decisions to opt in;
- Most respondents who opted in stated that the service was ‘Better than expected’ (32%) or ‘About what [they] expected’ (58%).
- By far the most common way people opted in was by phone (79%);
- Most people found the opting in process very easy or easy (82%);
- Most people got information on how to use the service from the leaflet (68%); and
- 97% of householders who opted in said that they would recommend the service to family and friends.

3.5.8 Service Use of Those Who Opted In

In the following section the households which opted in have been broken down into the following groups:

- Those who opted in but never used the service (1 household, 3%);
- Those who opted in but were no longer using the service (4 householders, 11%); and
- Those who continued to use the service until the time of the post trial survey (33 householders, 87%).

3.5.9 Those Who Opted In but Never Used the Service

There was only 1 householder in Auchterarder who opted into the service for nappies but never used it; the householder said they would use the service if the need arose again.

3.5.10 Those Who Opted in but were No Longer Using the Service

Of the households which opted in 4 (11%) were no longer using the service.

Reasons provided for not using it anymore were:

- No longer need the service (3 households, 8%, 5% had used nappies, 3% had used IC); and
- Service wasn't reliable (1 household; 3%).

When those no longer using the service were asked what would encourage them to use the service in the future, the responses given were:

- If I need the service again (2 householders, 5%);
- If it was permanent (1 householder, 3%); and
- If the service was improved (1 householder, 3%).

3.5.11 Those who Continued to Use the Service

The following section refers to the households which opted in and were still using the service at the time of the post-survey, 87%.

3.5.11.1 AHP Sacks Used per Week

The number of sacks used per week by householders is displayed in Figure 1.5.

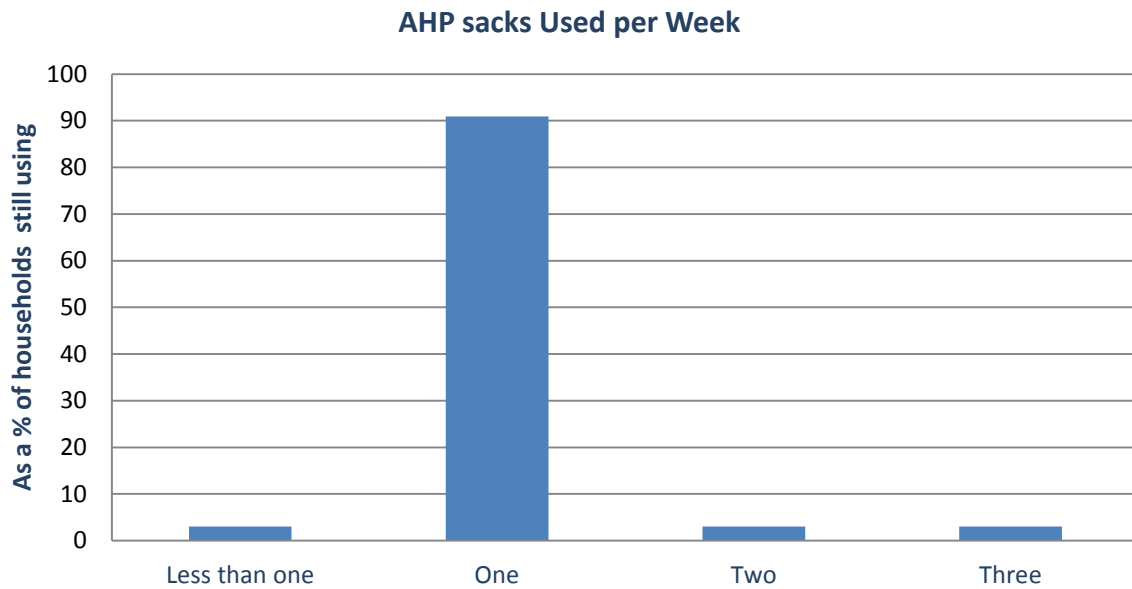


Figure 1.5
Number of AHP sacks used per week

94% of householders used one AHP sack or less per week, 6% used more than one.

3.5.11.2 AHP Bin Fill Level against Frequency of Presenting AHP Sacks

Most users put the sacks out for collection once a week (82%), as displayed in Figure 1.6.

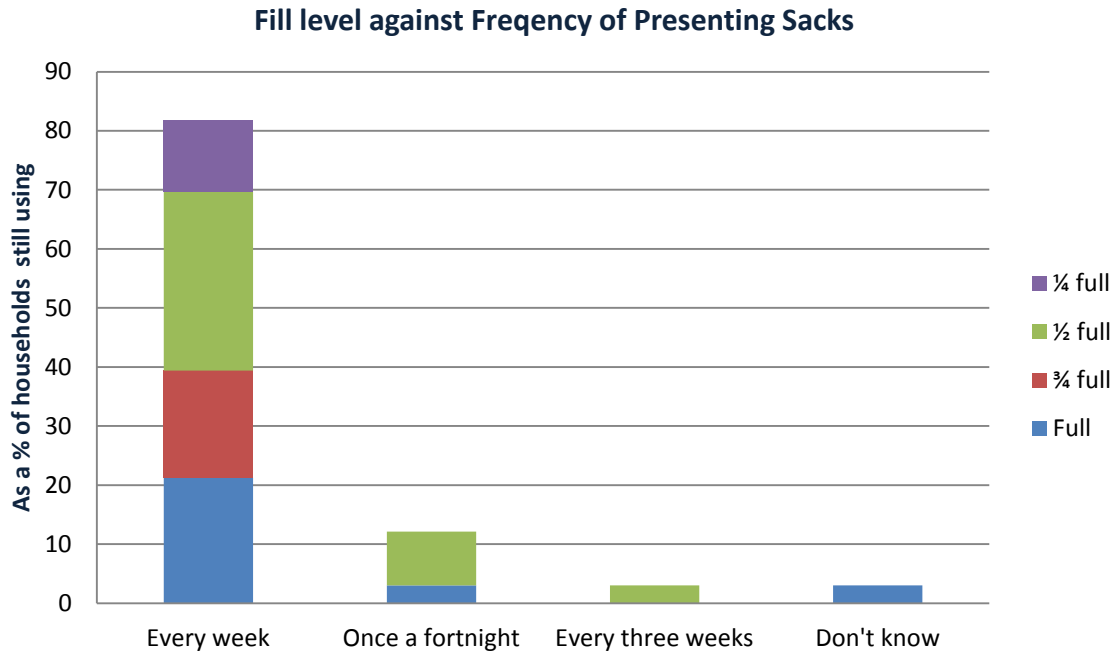


Figure 1.6
AHP Bin Fill Level against Frequency of Presenting Sacks

39% of the users who presented their AHP sacks said they were 3/4 full to full when they did so, 42% presented their sacks every week when their bin had been 1/2 full or less. 14% of householders put the sacks out fortnightly when they were 3/4 full to full.

3.5.11.3 Fortnightly Collections

48% of households said a fortnightly collection would be sufficient for their households needs, 36% said that it would not and 15% were undecided, as displayed in Figure 1.7.

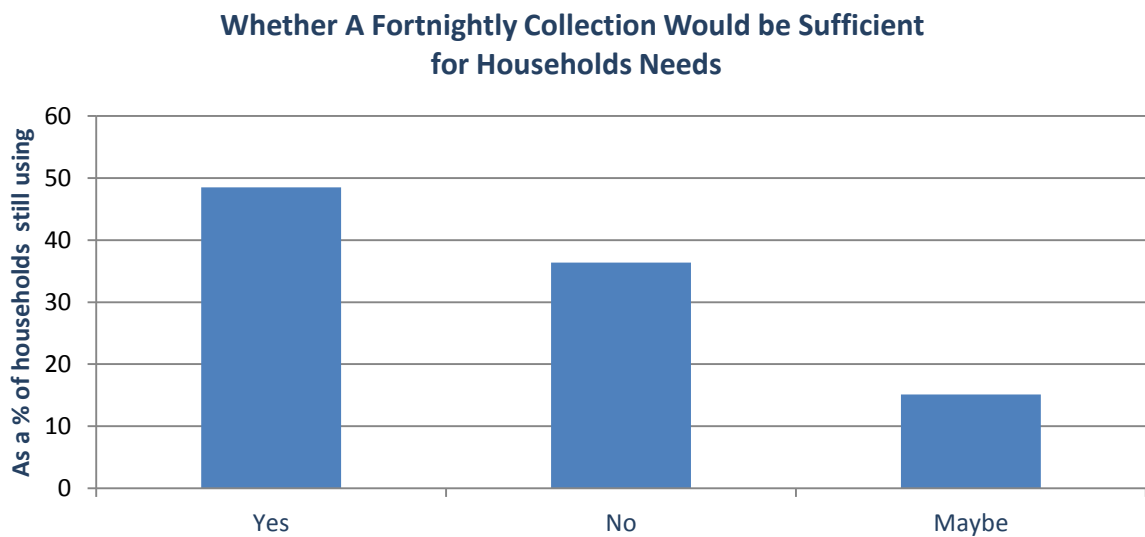


Figure 1.7

Whether a Fortnightly Collection would be Sufficient for Households Needs

3.5.11.4 AHP Bin Usage

The vast majority of householders said that the AHP bin was used for all of their AHP waste at home, this suggests that once people started to use the AHP bin the majority of AHP waste generated in the household was recycled. Only 9% of householders reported using their normal bin for AHP waste sometimes, reasons provided for doing so were:

- If I forget (1 householder; 3%);
- If it's been snowing (1 householder; 3%); and
- Don't know (1 householder; 3%).

3.5.11.5 Suitability of the AHP Bin

88% of households still using the service said that the bin was suitable for collecting their AHP waste. When asked what they liked about the bin the responses were:

- Nothing in particular (30%);
- Good size (21%);
- Easy/convenient to use (15%);
- Hygienic (9%);
- Was streamline/didn't take up much room (6%);
- Kept the waste out of the other bin (3%)
- The lid (3%)
- It's outside (3%) and
- It's easy to clean (3%); and
- Don't know (6%).

3.5.11.6 Suggested Improvements to the AHP Bin

73% householders had no suggestion as to how to improve the AHP bin. The main concern with this service was with the quality of the lid:

- Better lid (15%);
- Lockable lid (9%);
- If it was bigger (3%);
- If it had wheels (3%); and
- If it was heavier (3%).

3.5.11.7 Bin Storage

Most users kept the AHP bin outside (73%) or in a shed/garage (9%), 18% of users stored the bin in their house.

3.5.11.8 Suitability of the AHP Sacks

97% of households still using the service said that the sacks were suitable for collecting their AHP waste. When asked what they liked about the sacks the responses were:

- Very strong (61%)
- Nothing in particular (21%);
- Good size/fit (6%);
- Convenient to use (6%); and
- Colour (3%).

6% of householders responded with 'don't know'.

3.5.11.9 Problems Experienced with the Sacks

The majority of users reported that they had experienced no problems when using the service, 9% reported the following problems:

- Smell (1 householder; 3%);
- Too big (1 householder; 3%); and
- Fell down in bin (1 householder; 3%).

3.5.11.10 Suggested Improvements to the AHP Sacks

73% householders had no suggestion as to how to improve the AHP sacks. The main improvement was for the sacks to have ties:

- Ties for the bags (18%);
- Smaller sacks (6%);
- Bigger sacks (3%); and
- Different colour (3%)

3.5.11.11 AHP Bin and Sack Summary

Key points:

- 94% of householders used one AHP sack or less per week per week;
- Most users put the AHP sacks out for collection once a week (82%), regardless of their fill level;
- Only 21% of the users who presented their sacks weekly said they were full when they did so;
- While 48% said a weekly collection would be sufficient for their household's needs a substantial proportion (36%) said it would not be;
- The vast majority of householders (81%) said that they used the bin for all of their AHP waste when they were at home;
- 88% of householders said the AHP bin was suitable for collecting their AHP waste;
- Only 27% of users experienced problems with the bin, the most common problems were with the quality of the lid;
- 18% of users suggested ties for the bags;
- 82% of users stored the bin outside of their home; and
- 97% of householders said the AHP sacks were suitable for collecting their AHP waste.

3.5.12 Benefits of Using the Service and Reasons for Opting In

Benefits identified with using the service were similar to reasons why householders had chosen to opt in. For those still using the service the primary benefit mentioned was that it is ‘good to recycle’ (36%), this is similar to the percentage of those who provided it as a reason for initially opting in (32%), as displayed in Figure 1.8.

Benefits of Using the Service and Reasons for Opting In

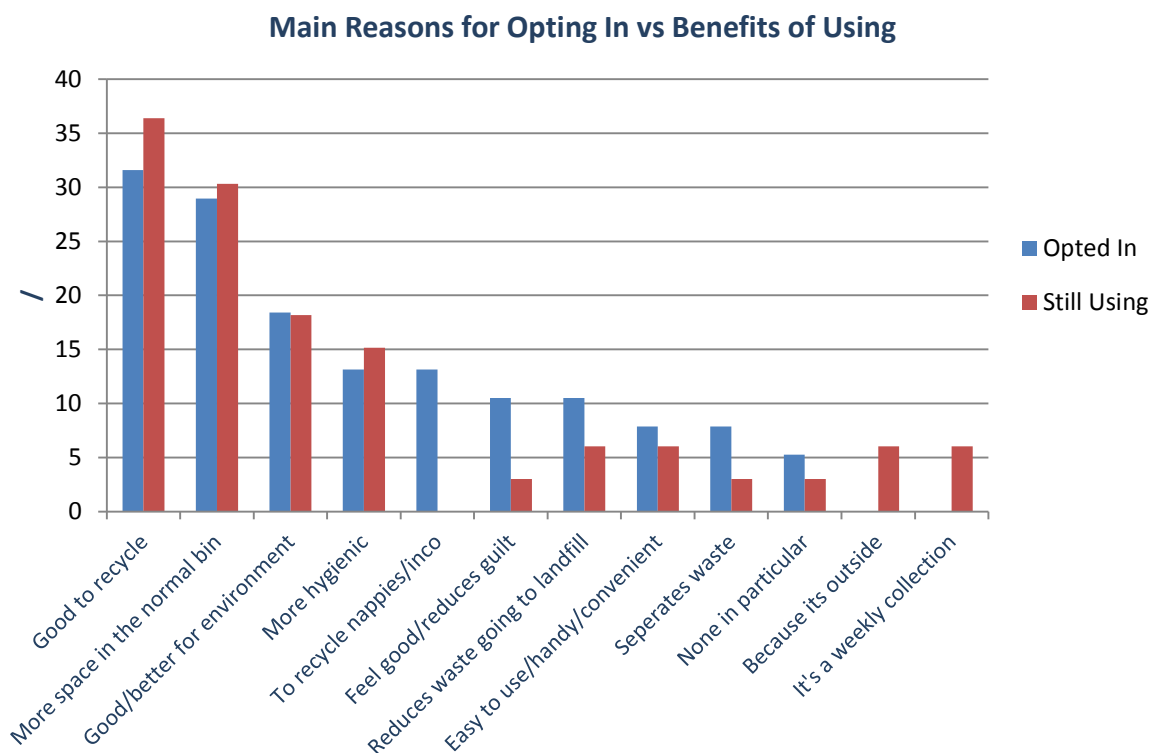


Figure 1.8

Benefits of Using the Service and Reasons for Opting In

The environmental benefits ‘Good to recycle’, ‘Good/better for the environment’ and ‘Reduces waste going to landfill’ were mentioned at least once by 58% of householders²⁴. This suggests that the recycling aspect of the service was important to the public and householders were not solely motivated by having more space in their normal bin.

Another common benefit was that there is more space in the normal bin (30%), 29% provided this as a reason for initially opting in.

²⁴ In Figure 1.8 householders were allowed to provide multiple responses.

3.5.13 Ease of Use of the Service

The vast majority of people still using the service rated it as easy or very easy to use (91%), as displayed in Figure 1.9.

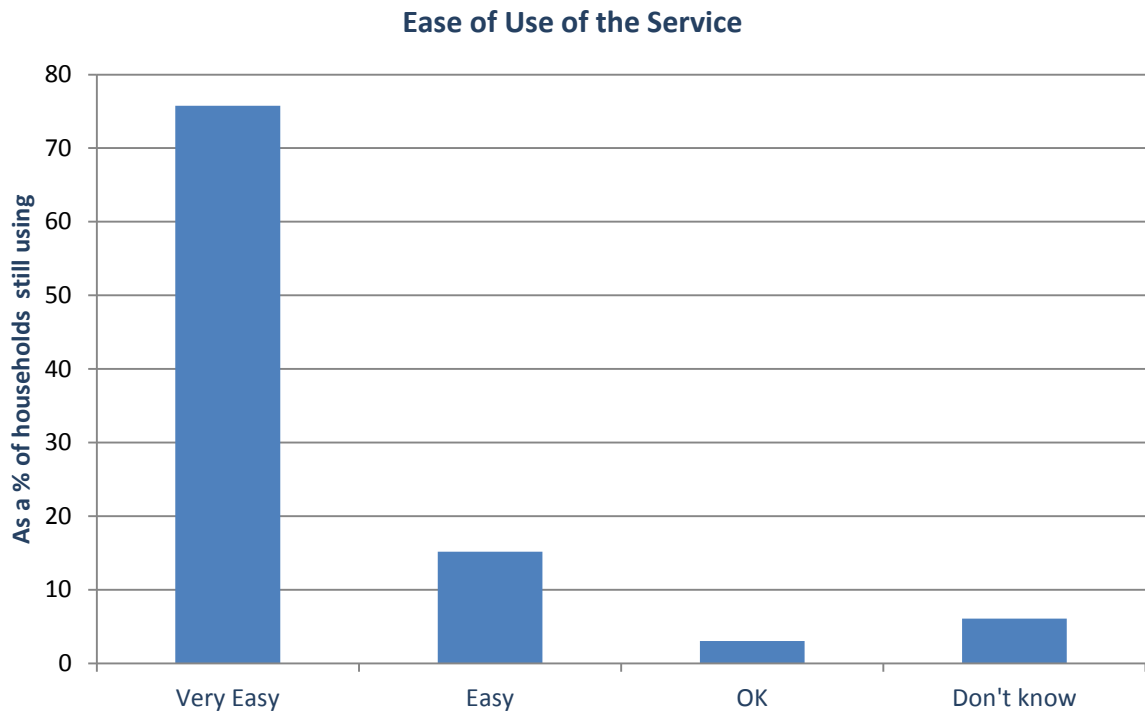


Figure 1.9

Ease of Use of the Service

3.5.14 Service Satisfaction

Satisfaction with the service was exceptionally high, with 91% of householders being very satisfied or satisfied with this, as displayed in Figure 1.10.

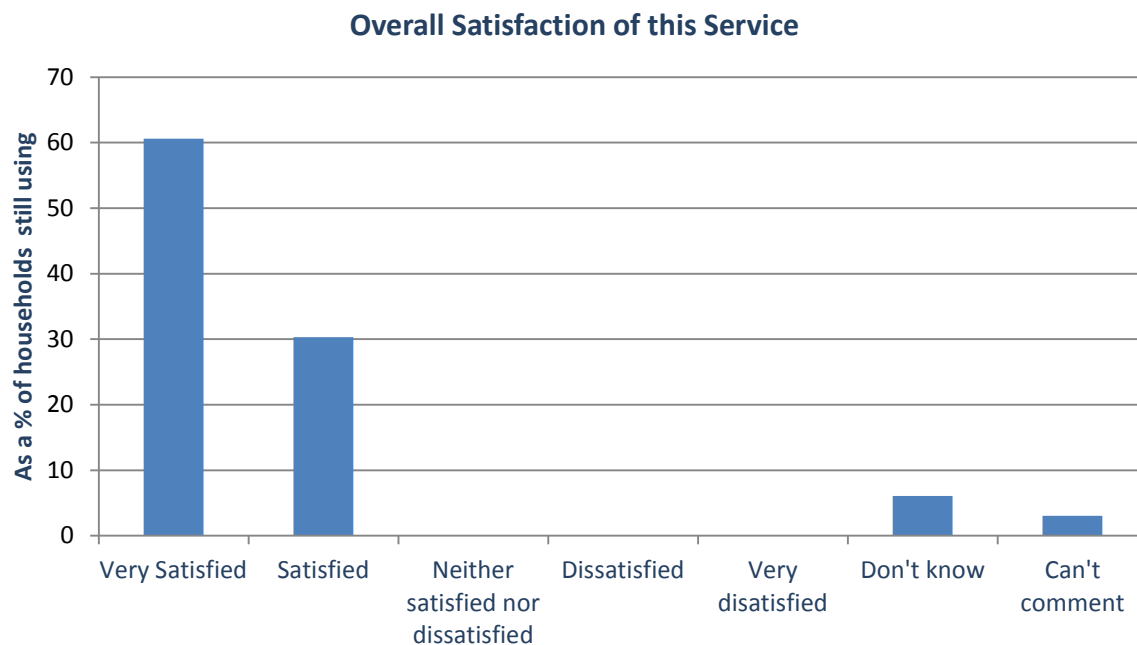


Figure 1.10
Overall Satisfaction with the Service

3.5.15 Problems when Using the Service

The majority of householders (82%) did not report any problems when using the service. Issues mentioned by the remaining 18% of householders were:

- Council didn't pick up the bin on time (9%);
- Problem with first collection (3%);
- Remembering to use the service (3%); and
- Someone using the wrong bin (3%).

3.5.16 Whether Users would Opt In to the Service if it was Offered on a Permanent Basis

97% of those still using the service said that they would opt into the service if it was offered on a permanent basis. This clearly demonstrates the popularity of this trial.

3.5.17 Summary for Those Still Using the Service

- Householders appear to be motivated to use the service because of recycling and by having more space in their normal bin;
- 91% of householders still using the service rated it as easy or very easy to use;
- Satisfaction with the service was extremely high, with 91% householders being either very satisfied or satisfied;
- The majority of householders (82%) did not report any problems when using the service; and
- 97% of those still using the service said that they would opt into the service if it was offered on a permanent basis.

3.6 Those who had Not Opted In

The following section refers to those householders who did not opt in to the trial service. NB: All households had been using AHP at the time of the pre-survey.

3.6.1 Reasons for Not Opting in

The following reasons were given for not opting into the service:

- I didn't have enough information (1 householder); and
- I didn't hear back (1 householder).

There were no responses that indicated that the householders did not like the concept of the service.

3.6.2 Encouragements to Use the Service

Those who did not opt in were asked what would have encouraged them to opt in and the responses were:

- If I had more information (1 householder); and
- Don't know (1 householder).

3.7 Communications

Perth and Kinross Council sent a leaflet to every property in the trial area to introduce the New AHP Recycling Service. Other activities included:

- Leaflets were distributed within the area in order to raise local awareness and encourage uptake (distributed to all households);
- Posters were distributed amongst local businesses, health centres, pharmacies, nurseries and community centres;
- Discussions took place with shop-owners, librarians, pharmacists and health workers to ensure they were aware of the recycling service and understood its operation;
- Decals were placed on AHP bins which showed householders what could go into the bin (for those who opted in); and
- Postcards were delivered to each household to reinforce how to use the service (for those who opted in).

The following section refers to all of the households which opted in to use the service.

3.7.1 Awareness of the AHP Trial

The leaflet was most effective at raising awareness of the AHP trial, 67% of householders became aware of the service from this. 13% became aware through a letter and 10% by word of mouth and other responses are displayed in Figure 1.11.

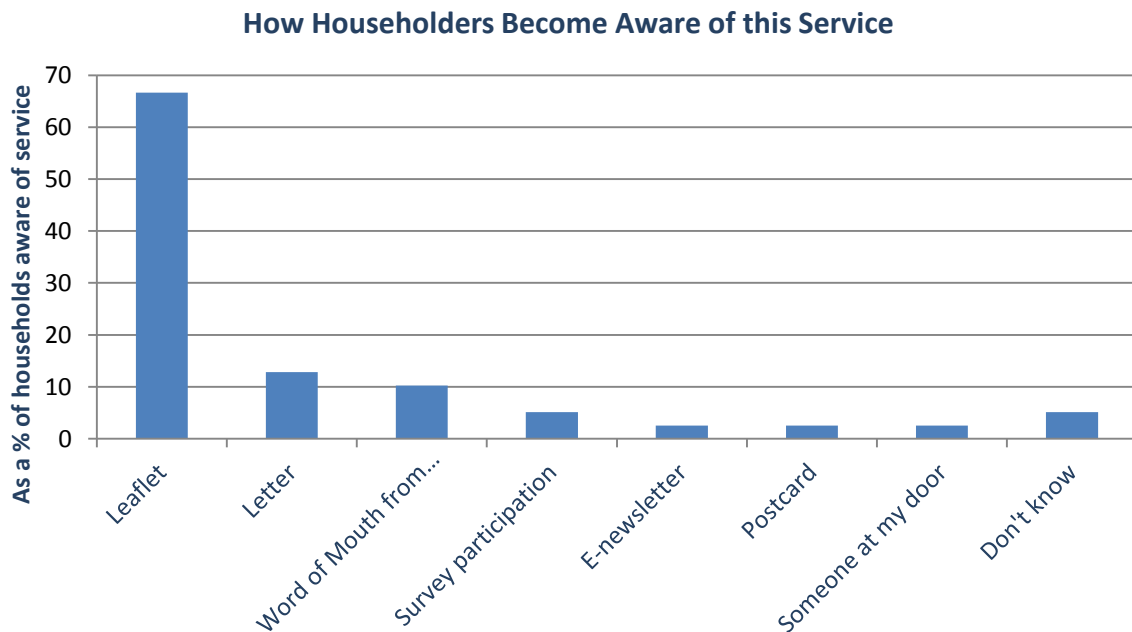


Figure 1.11
How Householders Became Aware of this Service

3.7.2 Communication Materials

3.7.2.1 Leaflet

83% of the households said they had received a leaflet through the door about the trial. When prompted with the leaflet this decreased to 80%. Of these 91% agreed with the statement “The leaflet told me everything I need to know”, 6% disagreed and 3% householders didn’t know or could not remember.

50% householders who received the leaflet kept it for future reference, 34% did not and a further 16% did not know or could not remember.

3.7.2.2 Poster

18% of householders said they had seen a poster about AHP Recycling. When prompted with the poster this remained the same. The posters were seen at the following locations:

- Doctors (13% of all households); and
- Don’t know (5%).

3.7.2.3 Presentation

8% of households said that someone had spoken to them about the new service. This took place by the following methods:

- Someone came to the door (1 householder); and
- Word of Mouth from friend/family/neighbour/colleague (2 householders).

3.7.2.4 Bin Decal

45% of households who opted in said they had seen a sticker on their AHP container, 59% of them found the sticker useful, 41% did not or did not know.

3.7.2.5 Postcard

18% of all households said they had received a postcard about the trial. When prompted with the postcard this increased to 35%. 93% who received the postcard agreed with the statement “The postcard told me everything I need to know”, 7% did not know.

3.7.3 Recycling Nappies/Incontinence Products is Good for the Environment

All of householders agreed or strongly agreed with the statement “Recycling nappies/Incontinence Products is Good for the Environment”, as displayed in Figure 1.12.

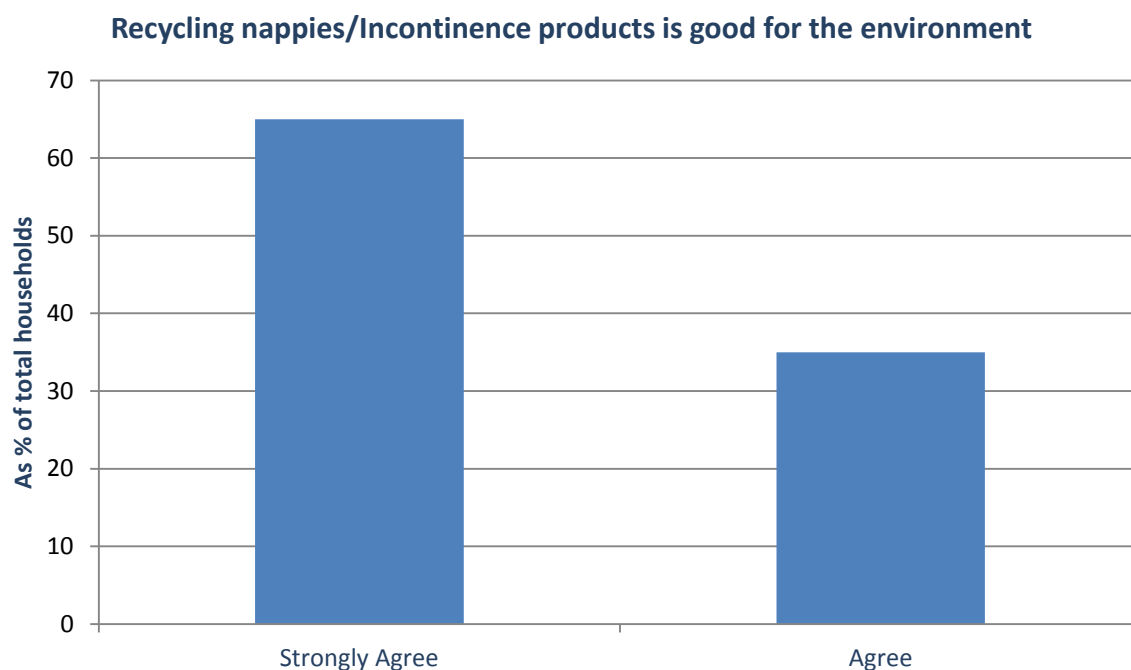


Figure 1.12
Recycling Nappies/Incontinence Products is Good for the Environment

3.7.4 Knowledge of What AHP Products can be Recycled into

Although about 40% of householders who opted in appeared to be motivated by recycling or other environmental benefits, knowledge of what AHP products can be turned into was very poor with only 13% of household providing a correct answer. 84% of householders responded with ‘don’t know’. Recall of correct and incorrect materials is listed below:

- Benches (5%);
- Garden furniture (8%); and
- Other (10%).

3.7.5 Further Comments and Opinions on the AHP Trials

All householders were asked if they had any further comments they would like to make about the proposed AHP trial in Auchterarder. 25% said it was a good service/idea and/or they hope it continued. Service issues were mentioned by 10% of householders, other issues included that the bags were collected at different times each week so they sometimes missed it.

Appendix 15 - Perth & Kinross Council (Tulloch) AHP Pre-Trial Survey

Perth and Kinross Council: Tulloch

AHP Pre Trial Survey

June 2012

Report Submitted to Zero Waste Scotland

1.0 Introduction: The Trial Scheme

Households who opt in to the Absorbent Hygiene Product trial scheme in Tulloch will receive a six month supply of recycling sacks (blue and yellow/black). The householder will be asked to put the used AHP products into a small yellow and black recycling sack and to tie this securely. This should then be placed in a larger blue recycling sack and should again be tied securely. The tied blue recycling sacks should be placed at the normal bin collection point by 7:30 am every Saturday. The new recycling sacks will be collected every week by Perth and Kinross Council.

2.0 Methodology

250 households were surveyed across the three trial areas within Perth and Kinross: Auchterarder, Crieff and Tulloch in Perth, in order to obtain a statistically representative sample of housing type and age demographics, as detailed in Table 1.

Table 60
Survey Plan Showing Property Type and Age Demographics for all Three Trial Areas in Perth and Kinross

	Housing Type Profile				Total Surveys	Age Group Profile			
	Detached	Semi	Terr	Flat		18-29	30-44	45-59	60+
Total	105	72	73		250	47	55	66	83
Auchterarder	43	18	18		79				
Crieff	55	33	22		110				
Tulloch	7	21	33		61				

3.0 Results

3.1 AHP Potential Capture

All of the results unless stated otherwise are from those households who are currently using AHP products at home. The AHP usage in Tulloch and the number of projected households that could be involved in the trial based on the survey results and applying this using the Scottish Census 2001 figures are outlined:

- The total number of households eligible to receive the service within the Tulloch trial area is 1,059;
- 20% of those households currently used AHP products; therefore the projected number of households who could potentially participate in the trial was 212 households;
- Of those potential households 92% indicated they would be willing to use the service which means that 195 households could potentially opt in to the service in Tulloch;
- 10,140 blue recycling sacks would therefore be required for the 6 month trial period in Tulloch if each household uses 52 sacks (2 per week); and
- 25,350 yellow and black recycling sacks would therefore be required for the 6 month trial period in Tulloch if each household uses 123 sacks (5 per week).

This represents the upper-estimate for the number of households who would opt in to this AHP-recycling service. This is the figure which was provided to the Local Authority for planning the infrastructure requirements.

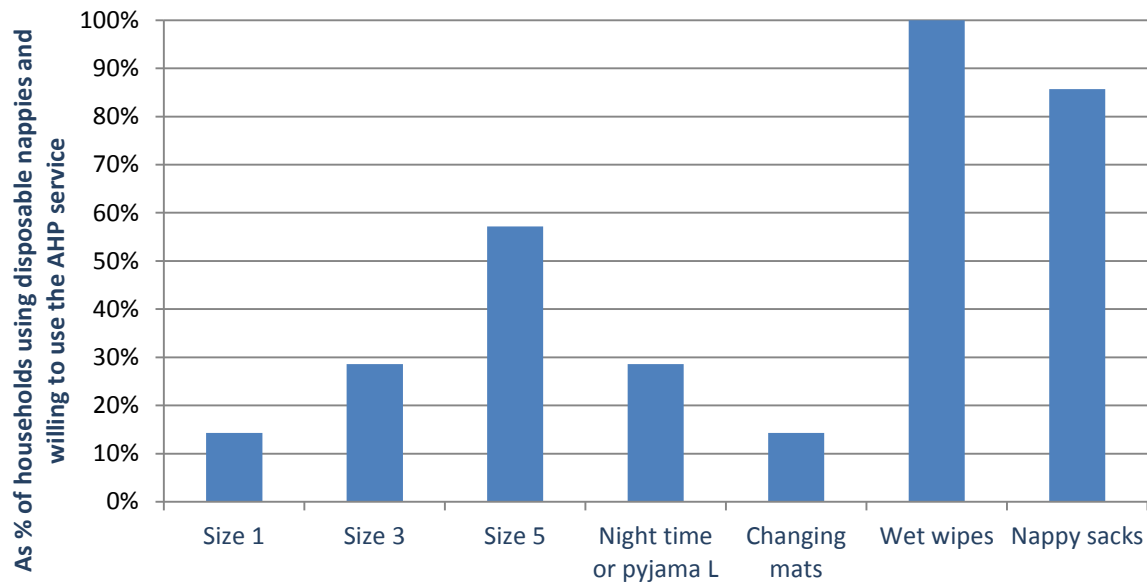
- Of the 20% AHP users in Tulloch; 58% were nappy users and 42% were incontinence product users;
- 100% of the disposable nappy users indicated they would be willing to use the service. This indicated that a total of 123 nappy using households would potentially opt in to the service;
- 80% of the Incontinence Product users indicated they would be willing to use the service; indicating that a total of 71 incontinence product using households would potentially opt in to the service; and
- This equates to 194 potential households that could opt into the service; and
- Of the 20% AHP users in Tulloch 58% also used Female Hygiene Products; and of those 100% were willing to use the service to recycle these products; equating to 123 households.

3.1.1 Disposable Nappy Capture

The average number of disposable nappies used per household per day was 5. If all 123 households who indicated they would be willing to use the service opted in; this would equate to 615 nappies per day; 4,305 per week and 111,930 disposable nappies for the 6 month trial period.

Some households stated they also used and disposed of nappy sacks and wet wipes on a daily basis in addition to disposable nappies as displayed in Figure 1.

Proportions of Sizes and Types of Disposable Nappies and Other Associated Items in Tulloch



**Figure 1
Sizes and Types of Disposable Nappies and Other Items Disposed of by the AHP Users Willing to Use the Service in Tulloch**

3.1.2 Incontinence Product Capture

The average number of incontinence products used per household per day was 3. If all 71 households who indicated they would be willing to use the service opted in; this would equate to 213 incontinence products per day, 1491 per week and 38,766 for the 6 month trial period.

As well as Incontinence Pads, Pouches and Pants other items such as wet wipes and connecting tubes were also disposed of.

3.1.3 Female Hygiene Product Capture

The average number of female hygiene products used per household was not recorded as part of the survey. The main types of female hygiene products used by the AHP Users willing to take part in the trial are displayed in Figure 2.

Proportions and Types of Female Hygiene Products Used in Tulloch

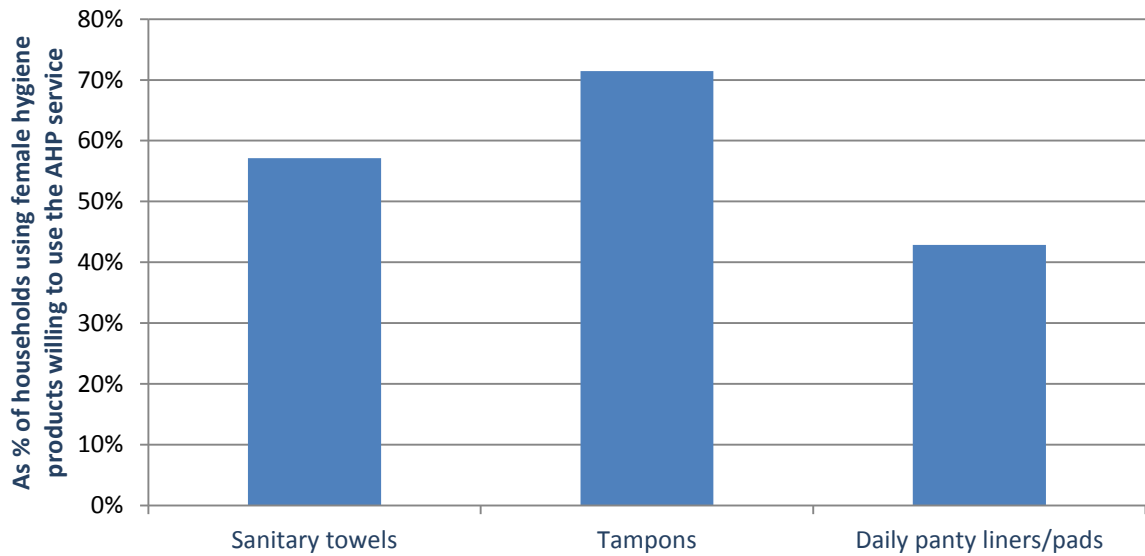


Figure 2

Proportions and Types of Female Hygiene Products Used by AHP Users willing to use the AHP Service in Tulloch

3.2 Acceptability of Proposed Service

83% of current AHP users indicated they would find the service either acceptable or very acceptable as shown in Figure 3. 8% of respondents answered that the service would not be acceptable with a further 8% undecided.

Acceptability of Proposed Service Amongst AHP Users in Tulloch

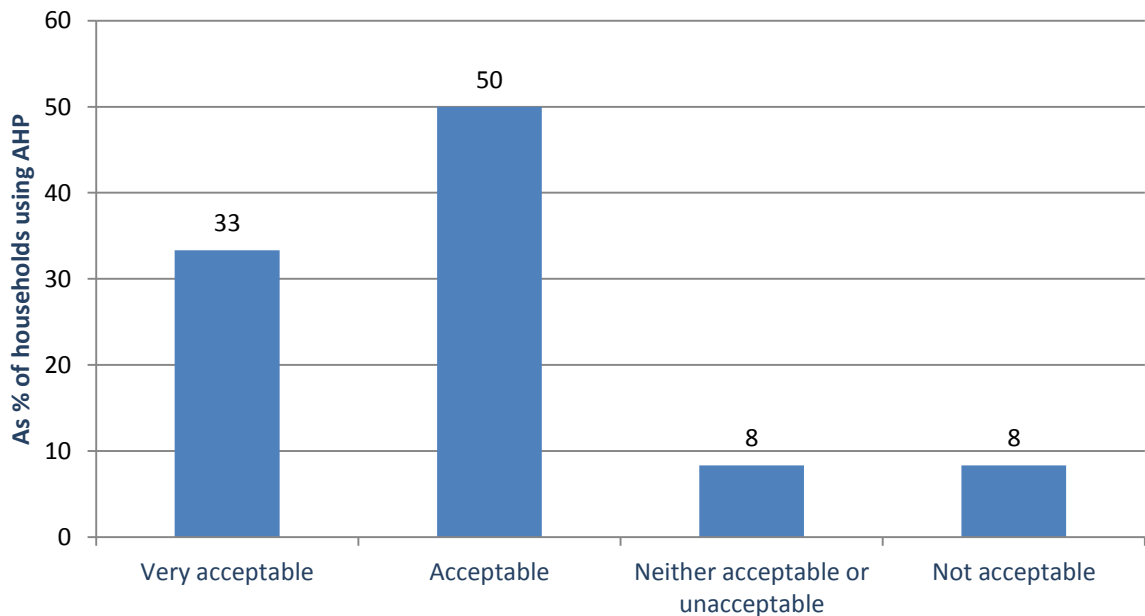


Figure 3

Acceptability of Proposed Service among AHP Users in Tulloch

3.3 Willingness to Use the Service

92% of households indicated they were willing to use the service, and 8% were not willing. The reasons given for not willing to use the service were due to the potential embarrassment for the householder in using this new AHP recycling service.

3.4 Benefits of Using the Service

The key benefits of this new service identified by householders are presented in Figure 4. The main responses identified were that it would reduce waste in the normal bin; there were benefits to the environment; it was more hygienic; and would help to prevent blockages in the drains. Other comments received included that it would be easier to use, and healthier.

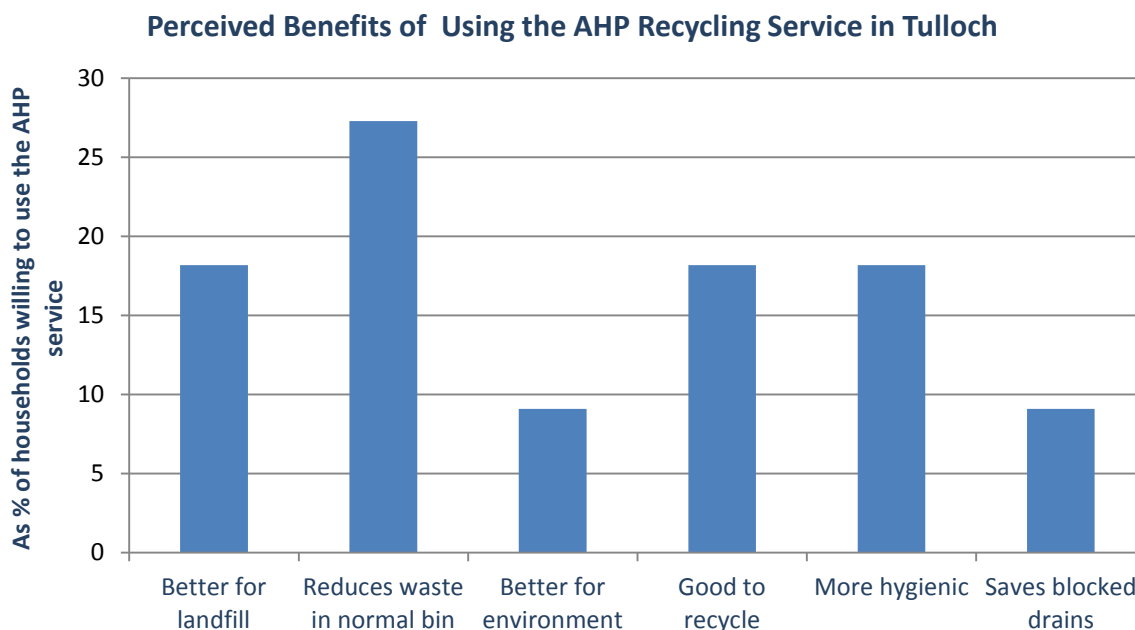


Figure 4

Perceived Benefits of Using the AHP Recycling Service among the AHP Users Willing to Use the Service in Tulloch

3.5 Perceived Concerns

No households in Tulloch expressed concerns about the new AHP recycling service.

3.6 Communication and Information Requirements

Households were asked a series of questions to identify what the most suitable type and form of communications should be to encourage them to use this new recycling service.

3.6.1 Information Requirements

Approximately 73% of households suggested types of information that would help them to effectively recycle their AHP products; as detailed in Figure 4.

The main types of information requested focused on what the products from the process were, and how they would be used; and the provision of collection calendars or information about the

collection times. Other types of information requested included providing a description of the service and how to use it; the environmental benefits, an explanation of the AHP terminology, and what materials can and cannot be recycled.

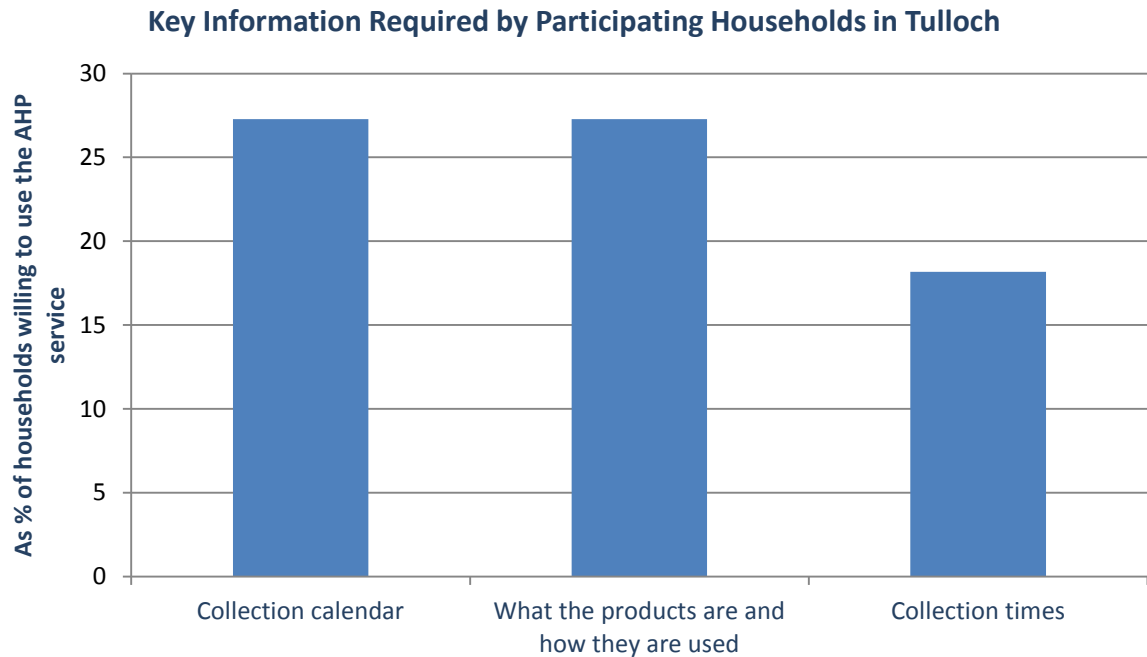


Figure 4

Information Required by Households Currently Using AHP in Tulloch

3.6.2 Key Messages to be used in Tulloch

When asked what the key messages should be to encourage the public to participate in this new AHP-recycling service; the environmental benefits (36%) and a reduction in waste to landfill (9%) were recorded.

3.6.3 Preferred Communication Formats in Tulloch

Households were asked what forms of communication they would prefer to receive information about the new AHP service; in addition to an introductory leaflet. The majority of people did not have a preference (28%). The alternative formats for communication among those who expressed a preference were via e-mail or letter.

3.6.4 Community Engagement Opportunities in Tulloch

When asked to identify other community groups, organisations or opportunities for wider community engagement for the AHP-recycling schemes, 63% of people did not respond. The most common suggestions identified by the remaining households were Nurseries (50%); Real Nappy Service (50%); and Maternity Wards (25%).

3.7 Further Comments and Opinions on the AHP Trial in Tulloch

All householders were asked if they had any further comments they would like to make about the proposed AHP trial in Tulloch. 15% provided comment; some of which were specifically relevant to the AHP trial. This included that people would prefer bins rather than sacks; concern for the health and safety of the collection crews; concerns over storage issues with the bags and

with animals tearing the bags, and concern about the potential smell associated with this type of service.

3.8 Opinion of the AHP Trials among the Non-AHP Users in Tulloch

Households who were not currently using AHP were asked to give their opinions on the overall acceptability of the scheme as well as the perceived concerns and benefits. The overall acceptability was lower among the AHP users at 83% compared with 90% of those not using AHP.

20% of the Non-AHP Users expressed concerns with the service. The key concerns identified were in relation to hygiene and smell; and the risk of bags bursting open or being opened by animals. Other concerns identified by this group were that people would prefer bins rather than sacks; concern for the health and safety of the collection crews; and concerns over storage issues associated with the bags.

The benefits of recycling AHP identified by both the AHP and Non-AHP users were broadly similar, as displayed in Figure 5.

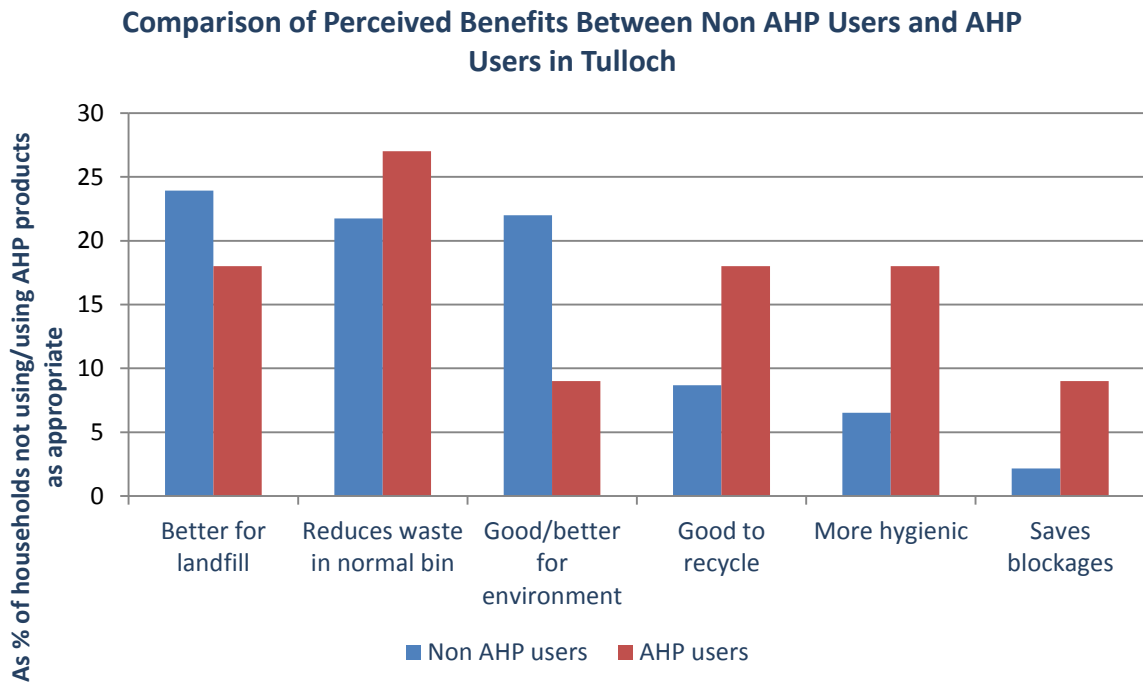


Figure 5

Benefits of Recycling AHP Identified by the Users and Non-Users of AHP in Tulloch

Appendix 16 - Perth & Kinross Council (Tulloch) Community Engagement Record

Community Engagement Record				
Date	Area	Location	Leaflets (Quantity)	Posters (Quantity)
02/07/2012	Perth	Letham Community Centre	15	
28/08/2012	Tulloch	Primary School	6	2
04/07/2012	Tulloch	Knox Free Church	10	1
04/07/2012	Tulloch	Tulloch Institute Club		1
04/07/2012	Tulloch	Tulloch Net (Local Charity)	10	1
04/07/2012	Tulloch	David Sands Shop	10	1
04/07/2012	Tulloch	Corner Shop		1
			51	7

Appendix 17 - Perth & Kinross Council (Tulloch) AHP Post-Trial Survey

Perth and Kinross Council - Tulloch

AHP Post Trial Survey

May 2013

Report Submitted to ZWS

3.0 Tulloch Results

3.1 Information on the AHP Trial Scheme in Tulloch

Households who opted in to the Absorbent Hygiene Product trial scheme in Tulloch received a six month supply of recycling sacks (80L blue sacks and 30L tiger sacks). The householder was asked to put the used AHP products into the smaller tiger sacks and to tie them securely. These could then be placed in a larger blue recycling sack which was also to be tied securely. The tied blue recycling sacks were to be placed at the normal bin collection point by 7:30 am every Saturday for collection.

The actual number of surveys carried out in Tulloch was 26, 21 of the householders had opted in and 5 had not. This number allowed for a statistically robust sample with a confidence of 95% for those households who opted in and those who did not.

The following section refers to findings from the AHP Post Trial Survey.

3.2 Survey Profile

The survey profile for Tulloch is displayed in Table 1.0.

Table 1.0
Survey Profile

	Number of Households Opted In	Number of Households Who Did Not Opt In
Nappies	18	3
IC	2	2
Both	0	0
None	1*	0
Total	21	5

**Opt ins who were not using AHP can be explained by those households who were no longer using AHP and is explored later in this report.*

In this report the households have been categorised into the following groups

- Those who did not opt in;
- Those who did opt in;
 - Those who opted in but never used the service;
 - Those who opted in but were no longer using the service; and
 - Those who continued to use the service.

3.6 Those Who Had Opted In

The following section refers to all of the households who had chosen to opt in.

3.6.1 Reasons for Opting In

Both environmental benefits and having more space in the normal bin appear to have been important in householders' decisions to opt in, as detailed in Figure 1.0.

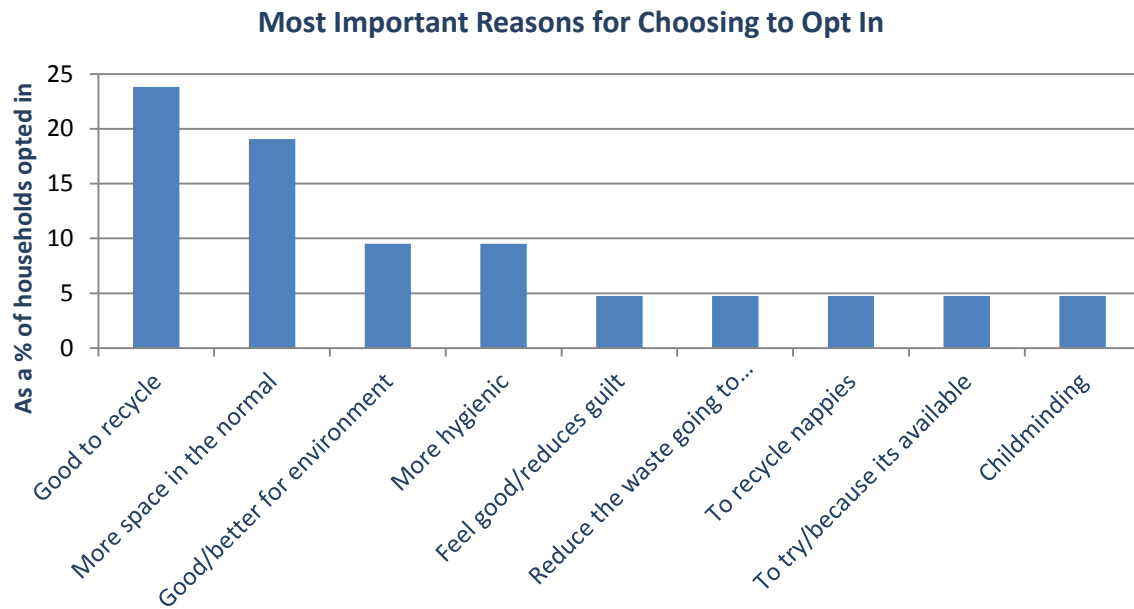


Figure 1.0
Reasons for Choosing to Opt In to the AHP Trial

3.6.2 To what extent the Service Met Respondents' Expectations

Overall the service met householders' expectations. Most respondents who opted in stated that the service was 'Better than expected' (29%) or 'About what [they] expected' (62%). No one reported that the service was worse than they expected, as displayed in Figure 1.1.

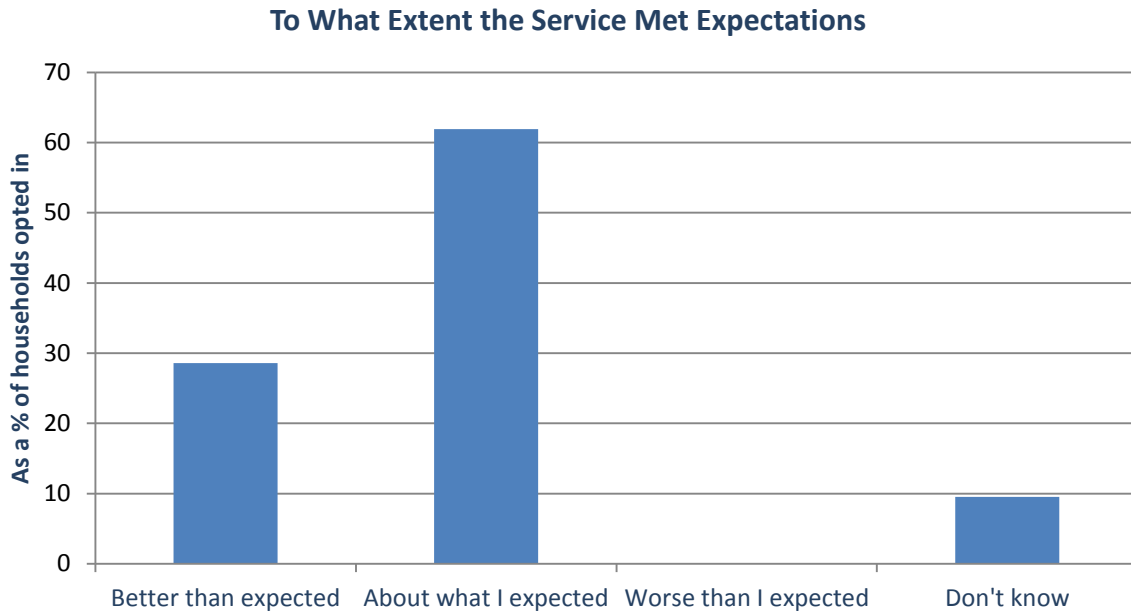


Figure 1.1

To What Extent the Service Met Expectations

3.6.3 Methods of Opting In

By far the most common way people opted in was by phone (81%), as detailed in Figure 1.2.

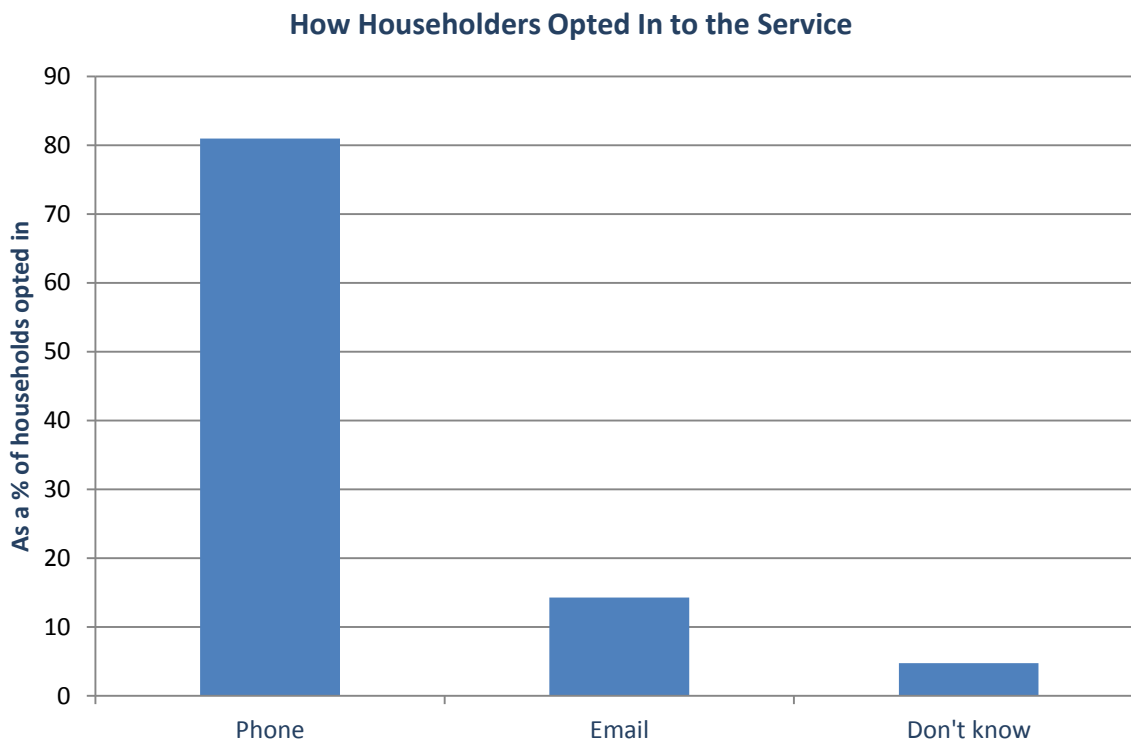


Figure 1.2

How Householders Opted In to the Service

3.6.4 Ease of Opting In

81% of householders in Tulloch found the opting in process very easy or easy, as displayed in Figure 1.3.

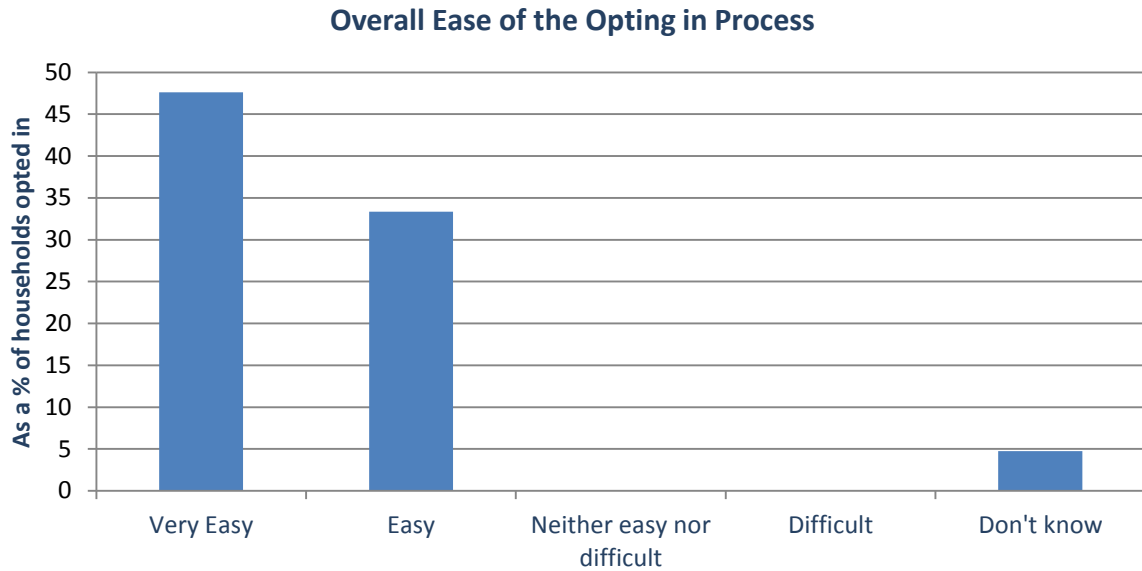


Figure 1.3
Overall Ease of the Opting in Process

When asked what would have made the process easier responses were:

- If there was less of a delay (10%, 2 householders); and
- If the call centre was more helpful (5%; 1 householder).

3.6.5 How Householders got Information on How to Use the Service

Most people got information on how to use the service from the leaflet (86%), others found out through word of mouth (5%), as displayed in Figure 1.4.

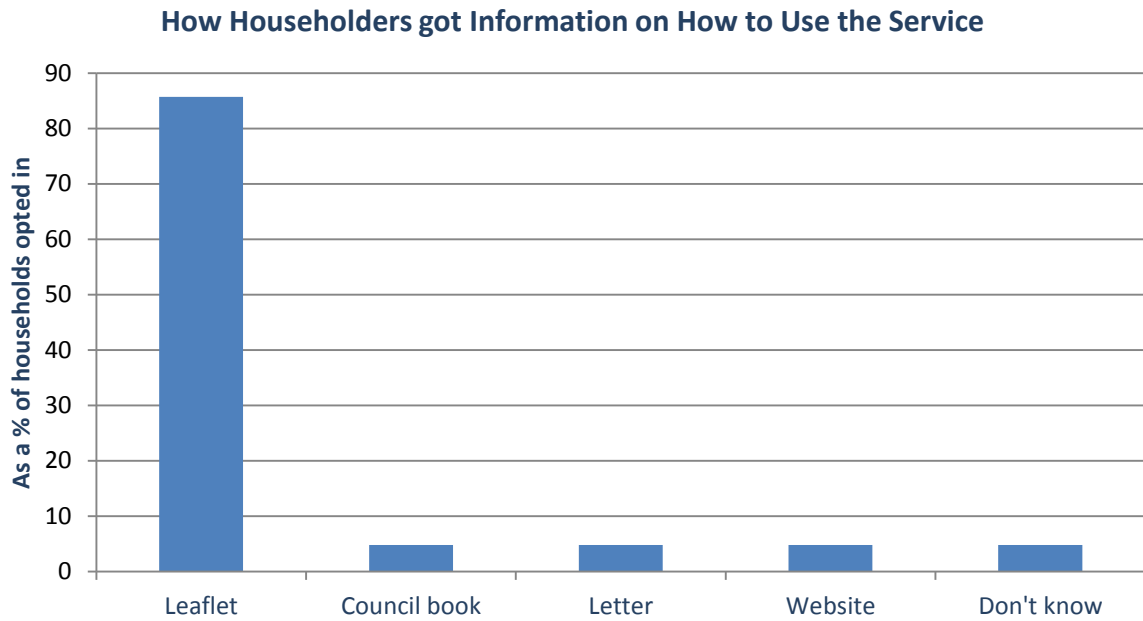


Figure 1.4
How Householders got Information on How to Use the Service

3.6.6 Whether Users Would Recommend the Service to Family and Friends

All of the householders who opted in said that they would recommend the service to family and friends, if it was available where they live.

3.6.7 Overall Summary for Those Who Opted In

- Both environmental benefits and practical reasons appear to have been important in householders' decisions to opt in;
- Most respondents who opted in stated that the service was 'Better than expected' (29%) or 'About what [they] expected' (62%).
- By far the most common way people opted in was by phone (81%);
- Most people found the opting in process very easy or easy (81%);
- Most people got information on how to use the service from the leaflet (86%); and
- 100% of householders who opted in said that they would recommend the service to family and friends.

3.6.8 Service Use of Those Who Opted In

In the following section the households which opted in have been broken down into the following groups:

- Those who opted in but never used the service (1 household; 5%);
- Those who opted in but were no longer using the service (2 households, 10%); and
- Those who continued to use the service until the time of the post trial survey (86%).

3.6.9 Those Who Opted In but Never Used the Service

There was only 1 household in Tulloch who opted into the service but never used it. The householder who had a child in nappies said they would use the service if the service was improved and if they were provided with a bin.

3.6.10 Those Who Opted in but were No Longer Using the Service

Of the households which opted in 2 were no longer using the service, reasons provided for not using it anymore were:

- No longer need the service (both households had used nappies);

When those no longer using the service were asked what would encourage them to use the service in the future, the responses given were:

- If I need the service again (2 householders).

3.6.11 Those who Continued to Use the Service

The following section refers to the households which opted in and were still using the service at the time of the post-survey, 86%.

3.6.11.1 AHP Sacks Used per Week

The number of AHP sacks used per week by householders is displayed in Figure 1.5.

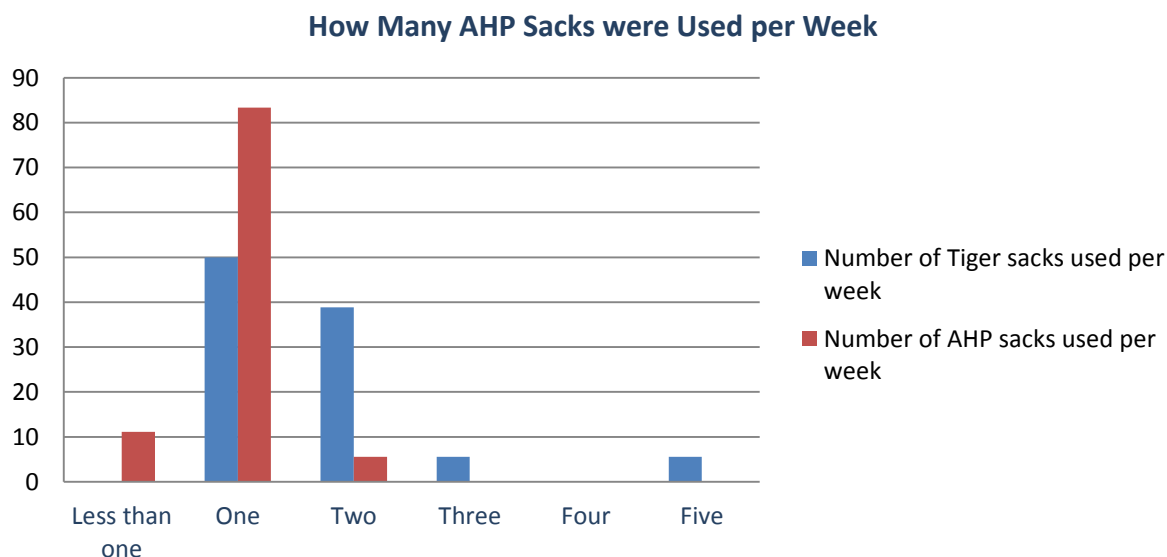


Figure 1.5
Number of AHP sacks used per week

89% of householders used one or two smaller tiger sacks per week. 94% used one or less than one larger AHP sack per week.

3.6.11.2 AHP Sack Fill Level against Frequency of Presenting AHP Sacks

All users put the sacks out for collection once a week (89%), or once a fortnight (11%), as displayed in Figure 1.6.

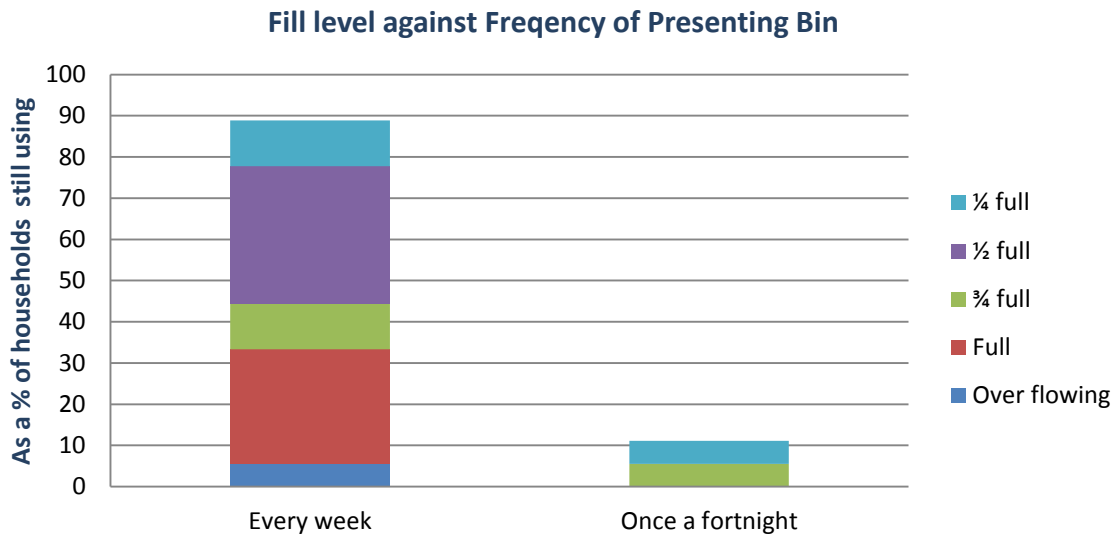


Figure 1.6
AHP Sack Fill Level against Frequency of Presenting Sacks

6% of householders reported that when they presented their AHP sacks there were overflowing. 44% of the users who presented their sacks weekly said they were 3/4 full to full when they did so, 50% presented their sacks every week when their sack was 1/2 full or less.

3.6.11.3 Fortnightly Collections

50% of households said a fortnightly collection would be sufficient for their households needs, 33% said that it would not and 17% were undecided, as displayed in Figure 1.7.

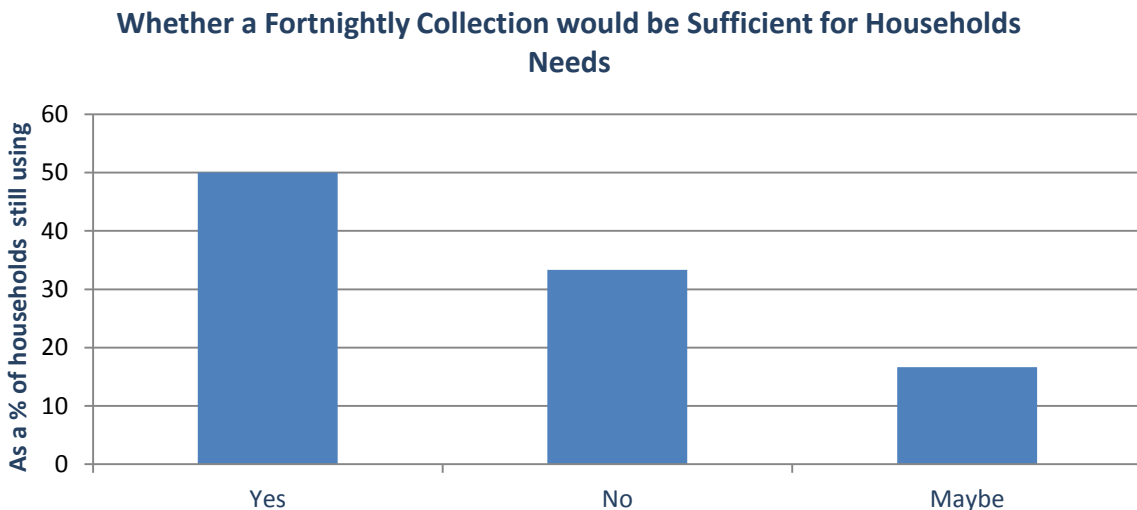


Figure 1.7
Whether a Fortnightly Collection would be Sufficient for Households Needs

3.6.11.4 AHP Sack Usage

The vast majority of householders said that the AHP sacks were used for all of their AHP waste at home, this suggests that once people started to use the AHP sacks the majority of AHP waste generated in the household was recycled. Only 11% of householders reported using their normal bin for AHP waste sometimes, reasons provided for doing so were:

- If it's easier to put it in the normal bin (1 householder; 6%); and
- Don't know (1 householder; 6%).

3.6.11.5 Suitability of the AHP Sacks

89% of households still using the service said that the sacks were suitable for collecting their AHP waste. When asked what they liked about the bin the responses were:

- Very strong (33%);
- Easy/convenient to use (22%);
- Nothing in particular (22%)
- Kept the waste out of the other bin (17%)
- Hygienic (11%);
- Good size (6%); and
- Better than carrier bags (6%).

3.6.11.6 Suggested Improvements to the AHP Sacks

56% householders had no suggestion as to how to improve the AHP sacks. The main improvement was for the sacks to have ties:

- Ties for sacks (28%);
- Separate bin (11%); and
- Smaller sacks (6%).

3.6.11.7 Sack Storage

Many householders kept their AHP sacks outside:

- Outside (50%); and
- In the shed/garage/outhouse (6%).

Others stored their sacks in the following locations;

- In a cupboard (11%);
- In the kitchen (22%);
- In the bathroom (6%); and
- In a bedroom (6%).

28% of householders specifically mentioned storing in a container sacks in a container. This wasn't asked as a specific question therefore the actual percentage might be higher.

3.6.11.8 Suitability of the Tiger Sacks

94% of households still using the service said that the sacks were suitable for collecting their AHP waste. When asked what they liked about the sacks the responses were:

- Nothing in particular (33%);

- Convenient to use (22%);
- Hygienic (17%);
- Kept the waste out of the other bin (17%); and
- Very strong (17%).

3.6.11.9 Problems Experienced with the Tiger Sacks

The majority of users reported that they had experienced no problems when using the service, only one reported the following problem:

- Too big (6%);

3.6.11.10 Suggested Improvements to the Tiger Sacks

74% householders had no suggestion as to how to improve the AHP sacks. Those who gave suggestions mentioned the following:

- Ties for the bags (22%);
- Scented sacks/air freshener for the sacks (11%); and
- Smaller sacks (6%).

3.6.11.11 AHP Sack Summary

Key points:

- 89% of householders used one or two smaller tiger sacks per week;
- 94% used one or less than one larger AHP sack per week;
- Most users put the AHP sacks out for collection once a week (89%);
- 6% of householders reported that when then presented their AHP sacks there were overflowing.
- Only 50% of households said a fortnightly collection would be sufficient for their households;
- The vast majority of householders (89%) said that they used the sacks for all of their AHP waste when they were at home;
- 89% of householders said the larger AHP sacks was suitable for collecting their AHP waste; and
- 94% of householders said the tiger sacks were suitable for collecting their AHP waste.

3.6.12 Benefits of Using the Service and Reasons for Opting In

Benefits identified with using the service were similar to reasons why householders had chosen to opt in. For those still using the service the primary benefit mentioned was more space in the normal bin (50%), this was also the most common reason provided for initially opting in (29%), as displayed in Figure 1.8.

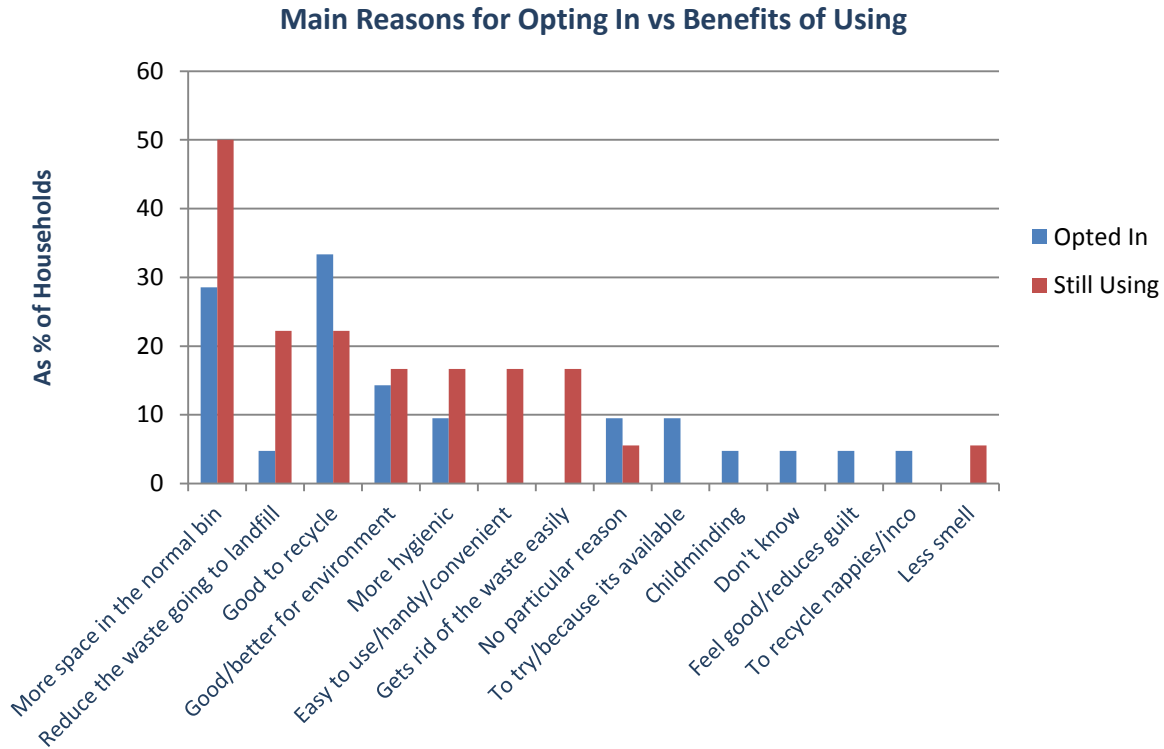


Figure 1.8

Benefits of Using the Service and Reasons for Opting In

The environmental benefits ‘Good to recycle’, ‘Good/better for the environment’ and ‘Reduces waste going to landfill’ were mentioned at least once by 61% of householders²⁵. This suggests that the recycling aspect of the service was important to the public and householders were not solely motivated by having more space in their normal bin.

²⁵ In Figure 1.8 householders were allowed to provide multiple responses.

3.6.13 Ease of Use of the Service

All of those still using the service rated it as easy or very easy to use, as displayed in Figure 1.9.

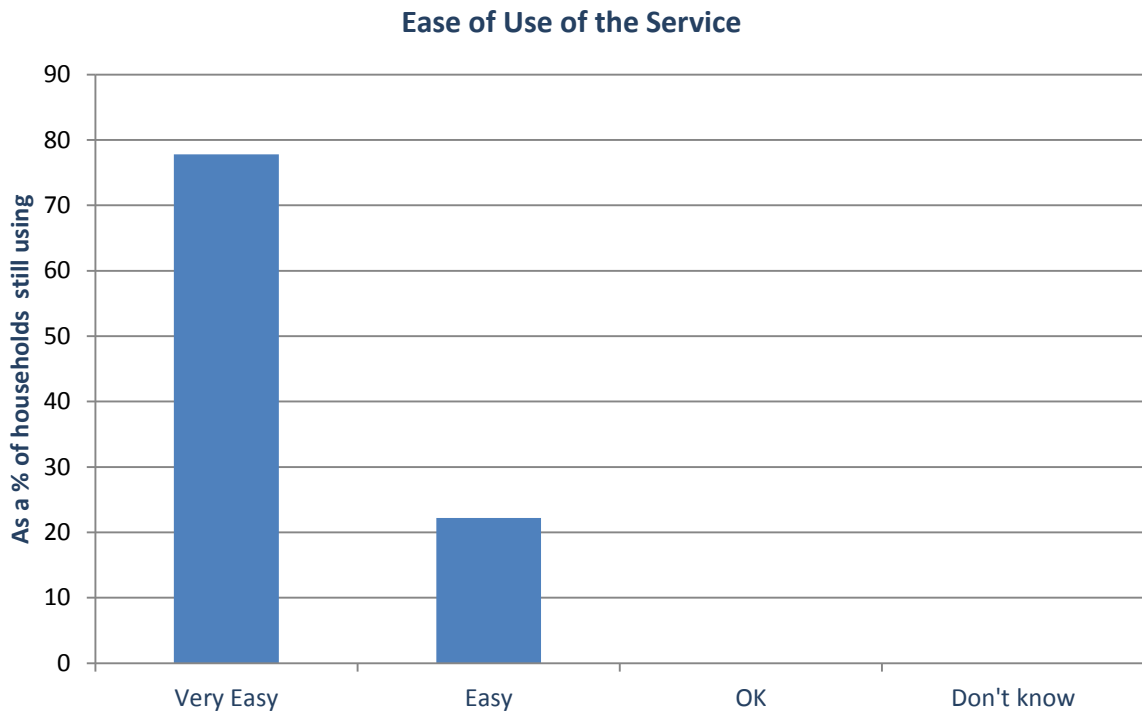


Figure 1.9

Ease of Use of the Service

3.6.14 Service Satisfaction

Satisfaction with the service was exceptionally high, with all householders being very satisfied or satisfied with this, as displayed in Figure 1.10.

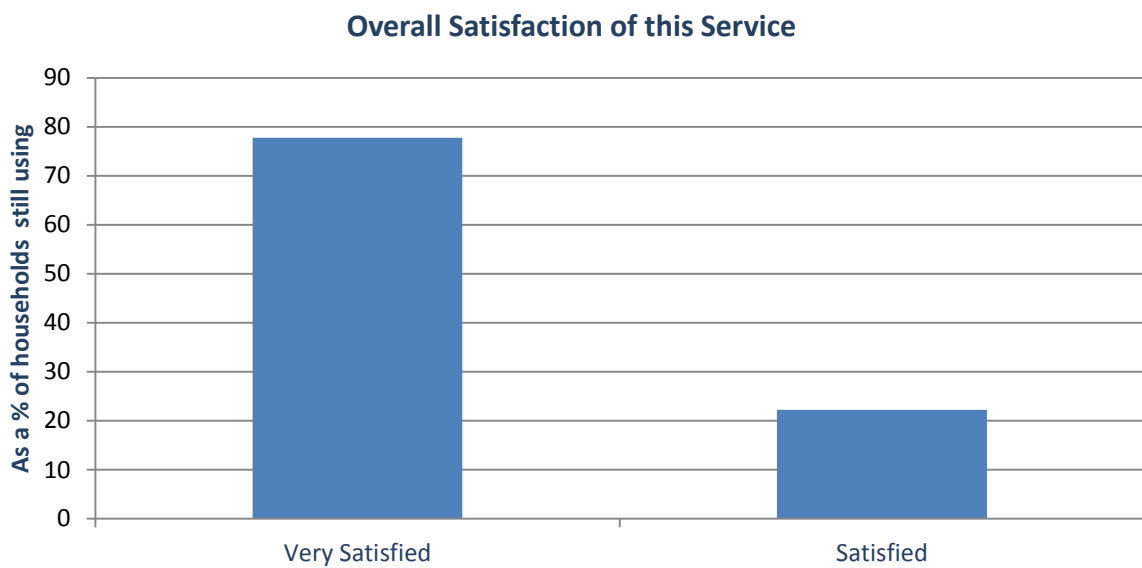


Figure 1.10

Overall Satisfaction with the Service

3.6.15 Problems when Using the Service

The majority of householders (94%) did not report any problems when using the service. Only one householder mentioned by the issue that the council didn't pick up the sacks on time (6%).

3.6.16 Whether Users would Opt In to the Service if it was Offered on a Permanent Basis

100% of those still using the service said that they would opt into the service if it was offered on a permanent basis. This clearly demonstrates the popularity of this trial.

3.6.17 Summary for Those Still Using the Service

- Householders appear to be motivated to use the service because of recycling and by having more space in their normal bin;
- All householders still using the service rated it as easy or very easy to use;
- Satisfaction with the service was extremely high, with all householders being either very satisfied or satisfied;
- The majority of householders (94%) did not report any problems when using the service; and
- All of those still using the service said that they would opt into the service if it was offered on a permanent basis.

3.7 Those who had Not Opted In

The following section refers to those householders who did not opt in to the trial service.

NB: All households had been using AHP at the time of the pre-survey.

3.7.1 Reasons for Not Opting in

The following reasons were given for not opting into the service:

- Didn't hear back (2 householders);
- Don't have enough waste (1 householder);
- I didn't know about the service (1 householder);
- I wash and reuse products (1 householder); and
- None in particular (1 householder).

There were no responses that indicated that the householders did not like the concept of the service.

3.7.2 Encouragements to Use the Service

Those who did not opt in were asked what would have encouraged them to opt in and the responses were:

- If I'd known (3 householders);
- If I had more waste (1 householder); and
- Don't know (1 householder)

3.8 Communications

Perth and Kinross Council sent a leaflet to every property in the trial area to introduce the New AHP Recycling Service. Other activities included:

- Leaflets were distributed within the area in order to raise local awareness and encourage uptake (distributed to all households);
- Posters were distributed amongst local businesses, health centres, pharmacies, nurseries and community centres;
- Discussions took place with the shop-owners, librarians, pharmacists and health workers to ensure they were aware of the recycling service and understood its operation;
- Postcards were delivered to each household to reinforce how to use the service (for those who opted in).

The following section refers to all of the households which opted in to use the service.

3.8.1 Awareness of the AHP Trial

The leaflet was most effective at raising awareness of the AHP trial, 80% of householders became aware of the service from this, and other responses are displayed in Figure 1.11.

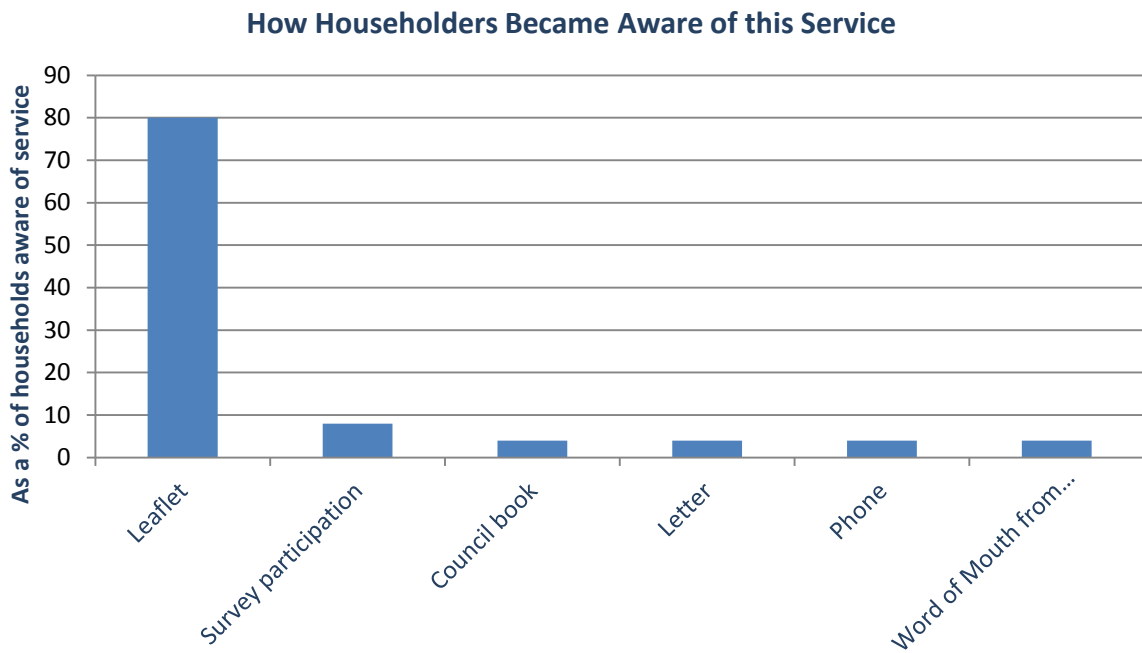


Figure 1.11
How Householders Became Aware of this Service

3.8.2 Communication Materials

3.8.2.1 Leaflet

85% of the households said they had received a leaflet through the door about the trial. When prompted with the leaflet this decreased to 81%. Of these 95% agreed with the statement “The leaflet told me everything I need to know” and 5% householders didn’t know.

43% householders who received the leaflet kept it for future reference, 33% did not and a further 24% did not know or could not remember.

3.8.2.2 Poster

4% of householders said they had seen a poster about AHP Recycling. When prompted with the poster this remained the same. The posters were seen at the following locations:

- Shop (4% of all households).

3.8.2.3 Presentation

8% of households said that someone had spoken to them about the new service. This took place by the following methods:

- Someone came to the door (4%); and
- Word of Mouth from friend/family/neighbour/colleague (4%).

3.8.2.4 Postcard

27% of all households said they had received a postcard about the trial. When prompted with the postcard this percentage stayed the same. All who received the postcard agreed with the statement “The postcard told me everything I need to know”.

3.8.3 Recycling Nappies/Incontinence Products is Good for the Environment

96% of householders agreed or strongly agreed with the statement “Recycling nappies/Incontinence Products is Good for the Environment”, as displayed in Figure 1.12.

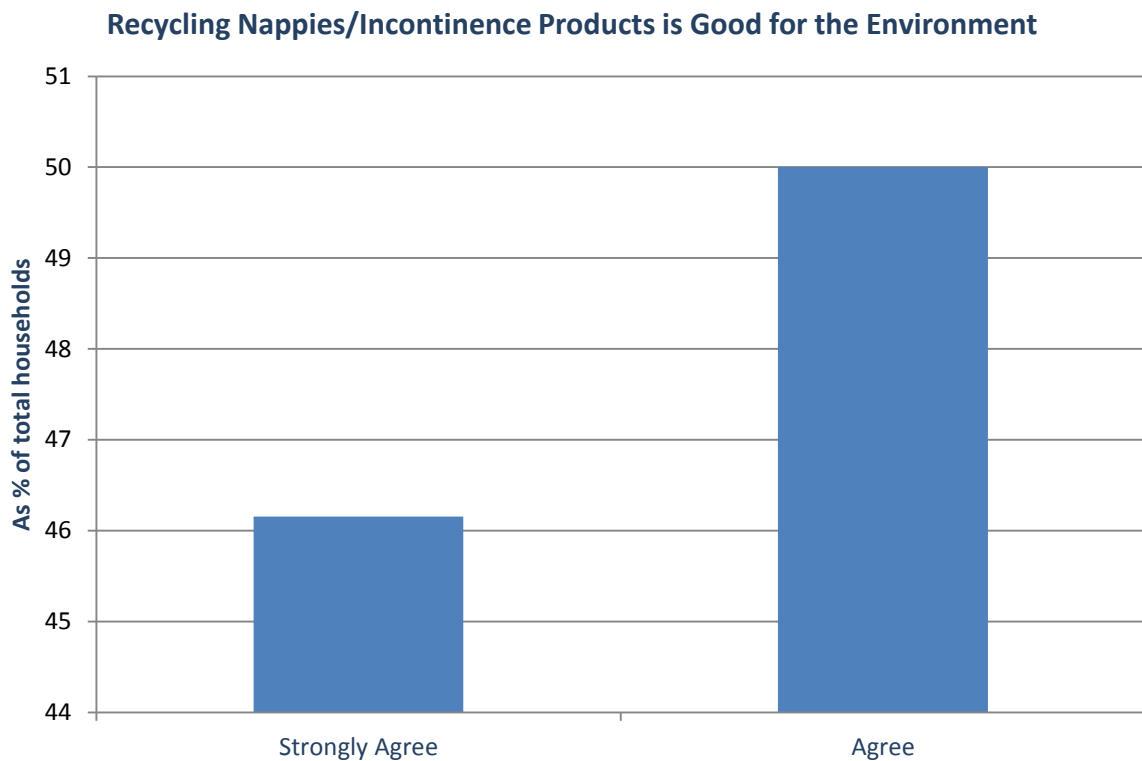


Figure 1.12
Recycling Nappies/Incontinence Products is Good for the Environment

3.8.4 Knowledge of What AHP Products can be Recycled into

Although about 61% of householders who opted in appeared to be motivated by recycling or other environmental benefits, knowledge of what AHP products can be turned into was very poor with only 27% of household providing a correct answer. 62% of householders responded with ‘don’t know’. Recall of correct and incorrect materials is listed below:

- Benches (12%);
- Garden furniture (12%);
- Cardboard (8%);
- Decking (8%);
- Other (10%).

Appendix 18 - North Lanarkshire Council Hazard and Risk Assessment

AHP Collection Trial Logistics

North Lanarkshire Council

Hazard and Risk Assessment

June 2012

1 Hazard and risk assessment

1.1 Offensive/hygiene waste

For the process of the hazard and risk assessment the AHP has been treated as hygiene / offensive waste and not clinical waste.

Offensive/hygiene waste is defined by the Department of Health as waste that:

- may cause offence due to the presence of recognisable healthcare waste items or body fluids;
- does not meet the definition of an infectious waste;
- does not possess any hazardous properties; and
- is not identified by the producer, or holder, as needing disinfection, or any other treatment, to reduce the number of microorganisms present. ¹

Offensive/hygiene waste (previously known as sanpro) is not 'special waste' under environmental legislation if:

- it is considered non-infectious;
- does not require specialist treatment or disposal. ²

The Department of Health categorise offensive waste from municipal sources as EWC code 20 01 99.

1.2 Risks and hazards

Offensive/hygiene waste has the potential to harm the health of those exposed to it. Typical effects can be:

- skin/eye infections (e.g. conjunctivitis);
- Gastroenteritis (symptoms include stomach cramps, diarrhoea and vomiting) ³.

The waste should not be compacted unless in accordance with the conditions of an environmental permit/waste management licence. Procedures should be in place to contain, minimise, and monitor potential bio-aerosol release.

Table 1 outlines the aspects for consideration outlined by the HSE when considering necessary control measures for handling offensive/hygiene waste.

Table 1 AHP control measures

Element of AHP handling	Considerations in relation to control measures
Collection:	<ul style="list-style-type: none"> • bag/receptacle collection procedures and clear roles and responsibilities for all staff; • collections frequent enough to ensure the storage capacity of the site is not exceeded; • effective recording of the receipt and transfer of waste materials (this can help in the identification of poor segregation and labelling by producers and clients); • handling of bags kept to a minimum and materials transferred, transported or handled to prevent rupturing of bags. Bags should not be manually compacted to increase capacity; • collectors/loaders only removing bags that are clearly marked/labelled; • arrangements for reporting spillages, inadequate or incorrect packaging and labelling of excessively heavy consignments. collectors/loaders need to know who to tell and

¹ DoH (2011) Safe Management of Healthcare Waste

² HSE – Managing offensive/hygiene waste

³ HSE – Managing offensive/hygiene waste

	<p>how to contact them;</p> <ul style="list-style-type: none"> • a safe system for avoiding spillages during transportation. Placing bags within wheeled bins or other suitable rigid containers, or loading them directly into leak- proof vehicles or containers, can reduce the risk of spillage. Spillages/leakage of wastes stored at the customer site should be dealt with by site staff following their own organisation clean-up procedures; • provision of appropriate personal protective equipment; • what to do in an emergency/sharps injury, as well as fire and first aid procedures.
Lifting and handling:	<ul style="list-style-type: none"> • Wheeled bins are preferable to bags as they can reduce the risk of manual handling and sharps injuries. • Bags should not be overfilled, e.g. be more than three quarters full, and should be tied at the neck. Contents should be double bagged if there is a possibility of leakage. • Collectors/loaders should: <ul style="list-style-type: none"> ○ handle offensive (and domestic) waste bags by the neck and should not drop, drag or throw bags; ○ not accept or remove overfilled or leaking bags.
Storage and opening of bags:	<ul style="list-style-type: none"> • Offensive/hygiene wastes should be stored in designated areas prior to treatment or disposal. • Opening of bags should be avoided. Effective segregation at source will eliminate/reduce the need to open bags. • Where bags have to be opened then mechanical aides or handled tools can reduce the risk of injury and contact with potentially harmful material. • Have procedures for the handling and packaging of sharps and other contra-materials that have been incorrectly placed within the offensive/hygiene waste stream. This will include provision of dedicated/labelled receptacles, tools and personal protective equipment.
Minimising infection risk:	<ul style="list-style-type: none"> • Brief collection crew and driver of risks to health and ways in which they can pick up infections. • Systems to report damaged equipment and get it replaced. • Access to first aid kit – all exposed wounds should be covered. • Changing out of contaminated clothing before eating, drinking or smoking. • Clean contaminated equipment on site. • Report illnesses to employer. • Provide appropriate equipment for each task such as litter-picking tongs, hand brushes, shovels and rigid containers (for the removal of sharps and other hazardous/infectious waste). It may be necessary to implement procedures for cleaning and disinfecting equipment (e.g. picking tongs). • Make sure personal hygiene regime highlighted. • Vaccinations: Where effective vaccines are available against microorganisms to which employees may be exposed, then employers are required to make them available, free of charge, to employees. Employees should be informed of the benefits and drawbacks of both vaccination and non-vaccination. It is recommended that employers keep a vaccination record. Remember that although it is a useful additional measure, vaccination/inoculation is not a substitute for other control measures.

Source: HSE (01/09) Managing Offensive/Hygiene Wastes, HSE (2003) Infection at Work: Controlling Risk

1.3 Methodology

For each stage of the collection system employed a hazard and risk assessment has been undertaken. The risk assessment has been based on a review of the existing risk assessments in place at each of the Councils for collection, transfer and bulking.

Broadly each risk assessment followed the standard HSE five-step programme for risk assessment:

1. Identify hazards
2. Decide who may be harmed and how
3. Evaluate the risk and decide on precautions
4. Record findings
5. Review and update where necessary – this included a gap analysis to identify the necessary precautions already in place in existing relevant risk assessments.

2 Risk Assessment

2.1 Collection

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Likely Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Storage capacity at HWRC is exceeded so offensive/hygiene waste not effectively contained – possible bio-aerosol/infection risk	Recycling Centre Assistant Collection Contractor Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Daily collections 	3	9	<ul style="list-style-type: none"> HWRC staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. <ul style="list-style-type: none"> Procedure in place for HWRC staff to request additional collection if bins become full to capacity. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Offensive / hygiene waste placed in wrong collection container by HHS – possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Site employees receive training and information on good personal hygiene standards. Site employees receive manual handling training. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. Collection in red sacks Clear signage for containers on site. 	4	12	<ul style="list-style-type: none"> HWRC staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; <ul style="list-style-type: none"> infection risk; and segregation. <ul style="list-style-type: none"> HWRC staff monitor members of the public and direct to correct container. Procedure in place for HWRC staff to remove any bags placed in wrong containers. <ul style="list-style-type: none"> Procedure in place to report illnesses. Staff vaccinations kept up to date. 	3	9
Bags overfilled by member of public causing leakage or spillage on-site – possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. 	2	6	<ul style="list-style-type: none"> Additional collection sacks provided for staff use on site. Clean-up procedures. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Likely Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Bags split as member of public places bags in container - possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. Containers provide effective containment. 	2	6	<ul style="list-style-type: none"> Additional collection sacks provided for staff use on site. Clean-up procedures. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Leakage or spillage on outside of collection container bringing users into contact with material.	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. 	4	12	<ul style="list-style-type: none"> Monitoring cleanliness of containers. Regular cleaning of containers. 	2	6
Infection through minor cuts and abrasions while handling AHP waste.	Recycling Centre Assistant	3	<ul style="list-style-type: none"> First Aid Kits are located at all Recycling Centres. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Shower facilities are available. 	3	9	<ul style="list-style-type: none"> Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Infection through eating, drinking and smoking after handling AHP waste	Recycling Centre Assistant	3	<ul style="list-style-type: none"> Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Shower facilities are available. 	3	9	<ul style="list-style-type: none"> Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6

2.2 Transfer

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Likely Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Waste unloaded in wrong area without effective containment - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Site employees receive manual handling training. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. 	4	12	<ul style="list-style-type: none"> Driver/collection crew staff briefed on new collection. Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Clear signage of segregation area. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Bags rupture on transfer in vehicle - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Site employees receive manual handling training. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. 	4	12	<ul style="list-style-type: none"> Driver/collection crew staff briefed on new collection. Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Clear signage of segregation area. Clean-up procedure. Clean-up equipment provided. Procedure in place to report illnesses. Staff vaccinations kept up to date 	3	9

Bags fall out of vehicle on transfer to containment container - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> • Housekeeping equipment is available. • Site employees receive training and information on good personal hygiene standards. • Site employees receive manual handling training. • Washing facilities provided. • Appropriate PPE is provided and worn. • Shower facilities are available. 	4	12	<ul style="list-style-type: none"> • Driver/collection crew staff briefed on new collection. • Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; and ○ segregation. • Clear signage of segregation area. • Clean-up procedure. • Clean-up equipment provided. • Procedure in place to report illnesses. 	3	9
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Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Likely Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
						<ul style="list-style-type: none"> Staff vaccinations kept up to date 		
Clinical waste identified in waste stream	Transfer station staff	4	<ul style="list-style-type: none"> Housekeeping equipment is available. Appropriate PPE is provided and worn. RCA's are trained to identify common hazardous substances. <ul style="list-style-type: none"> Attendants are issued with plastic aprons, gauntlets and visor. 	3	12	<ul style="list-style-type: none"> Procedure for separation, containment and disposal of any unexpected clinical waste arising. 	3	12
Odour from storage containers	Transfer station staff	1	<ul style="list-style-type: none"> Closed containment. Storage of less than one week. 	3	3	<ul style="list-style-type: none"> Procedure for reporting complaints. 	3	3
Infection through minor cuts and abrasions while handling AHP waste.	Transfer station staff	3	<ul style="list-style-type: none"> First Aid Kits are located at all Recycling Centres. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Shower facilities are available. 	3	9	<ul style="list-style-type: none"> Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Infection through eating, drinking and smoking after handling AHP waste	Transfer station staff	3	<ul style="list-style-type: none"> First Aid Kits are located at all Recycling Centres. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Shower facilities are available. 	3	9	<ul style="list-style-type: none"> Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6

2.3 Reference documents

- HSE (Revised 06/11) Five steps to risk assessment
- HSE (01/09) Managing Offensive/Hygiene Wastes
- HSE (04/09) Safe Waste and Recycling Collection Services
- Department of Health (2011) Safe Management of Healthcare Waste
- HSE (2003) Infection at Work: Controlling Risk
- HSE (10/03) INDG197 - Working with Sewage: The Health Hazards
- HSE. INDG1415 - Stay Clean, Stay Healthy: Looking after health in waste industry
- NHS Lothian (2011) Infection Prevention and Control Manual
- Scottish Health Technical Note 3 (2010) NHS Scotland Waste Management Guidance
- Sniffer (2007) Best Practice Guidance for the Management of Hygiene Waste for Key Producers in Northern Ireland and Scotland

Appendix 19 - North Lanarkshire Council AHP Pre-Trial Survey

North Lanarkshire Council

AHP Pre Trial Survey (Coatbridge)

June 2012

Report Submitted to North Lanarkshire Council

1.0 Introduction: The Trial Scheme

Households who opt in to the Absorbent Hygiene Product trial scheme in Coatbridge, North Lanarkshire will receive an initial supply of five blue recycling sacks which would be posted to the house. These sacks once nearly full would be taken to the Stobcross Recycling Centre in Coatbridge, North Lanarkshire, where there would be suitable Recycling Containers. At the Centre, Recycling Centre Attendants will provide the public with further free recycling sacks (up to 5 at a time).

2.0 Methodology

250 households were surveyed in Coatbridge, North Lanarkshire, in order to obtain a statistically representative sample of housing type and age demographics, as detailed in Table 1.

Table 61

Survey Plan Showing Property Type and Age Demographics

	Housing Type Profile				Total Surveys	Age Group Profile			
	Detached	Semi	Terr	Flat		18-29	30-44	45-59	60+
Coatbridge	14	60	71	105	250	50	66	67	67

3.0 Results

3.1 AHP Potential Capture

All of the results unless stated otherwise are from those households who are currently using AHP products at home. The AHP usage in Coatbridge and the number of projected households that could be involved in the trial based on the survey results and applying this using the Scottish Census 2001 figures are outlined:

- The total number of households eligible to receive the service within the Coatbridge, North Lanarkshire trial area is 17,323;
- 14% of those households currently used AHP products; therefore the projected number of households who could potentially participate in the trial was 2425 households;
- Of those potential households 67% indicated they would be willing to use the service which means that 1,625 households could potentially opt in to the service in Coatbridge, North Lanarkshire;
- 211,250 blue recycling sacks would therefore be required for the 6 month trial period in Coatbridge, North Lanarkshire if each household uses 130 sacks (5 per week).

This represents the upper-estimate for the number of households who would opt in to this AHP-recycling service. This is the figure which was provided to the Local Authority for planning the infrastructure requirements.

- Of the 14% AHP users in Coatbridge, North Lanarkshire; 69% were nappy users and 33% were incontinence product users;
- 68% of the nappy users indicated they would be willing to use the service. This gives a total of 1138 nappy using households would potentially opt in to the service;²⁶
- 67% of the Incontinence Product users indicated they would be willing to use the service; indicating that a total of 536 incontinence product using households would potentially opt in to the service; and
- Of the 14% AHP users in Coatbridge, North Lanarkshire 69% also used Female Hygiene Products; and of those 68% were willing to use the service to recycle these products; equating to 1138 households.

3.1.1 Disposable Nappy Capture

The average number of disposable nappies used per household per day was 6. If all 1138 households who indicated they would be willing to use the service opted in; this would equate to 6,828 nappies per day; 47,796 per week and 1,242,696 disposable nappies for the 6 month trial period.

Some households stated they also used and disposed of nappy sacks and wet wipes on a daily basis in addition to disposable nappies as displayed in Figure 1.

²⁶ Extrapolated figure based on one of the surveyed households using both nappies and incontinence products.

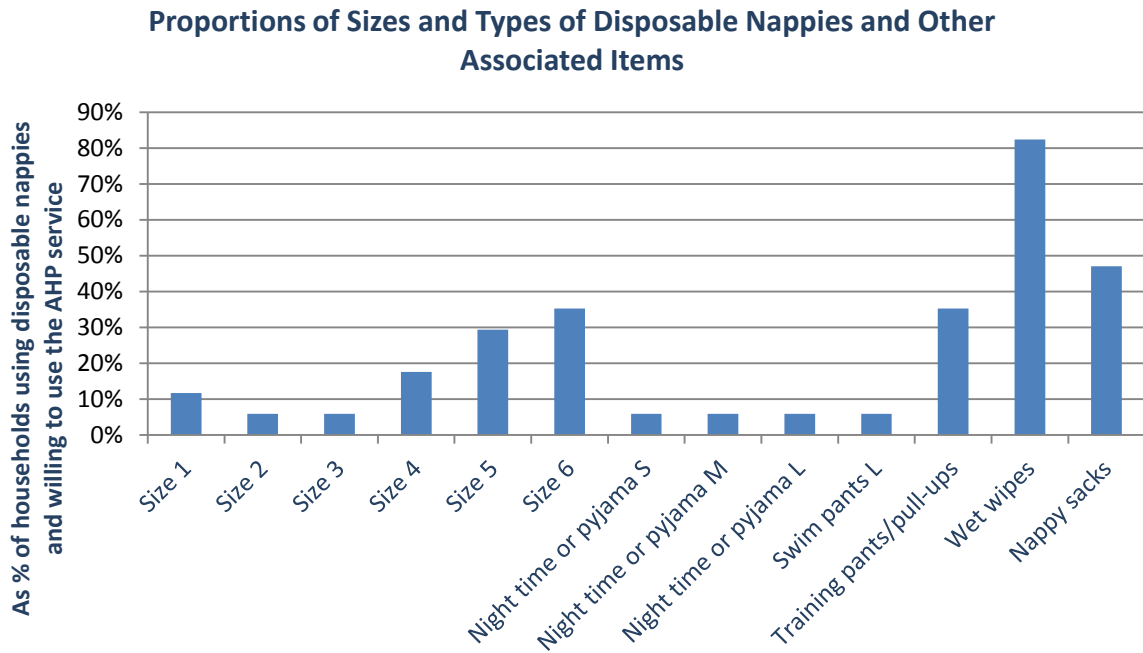


Figure 1
Sizes and Types of Disposable Nappies and Other Items Disposed of by the AHP Users Willing to Use the Service

3.1.2 Incontinence Product Capture

The average number of incontinence products used per household per day was 4. If all 536 households who indicated they would be willing to use the service opted in; this would equate to 2,144 incontinence products per day, 15,008 per week and 390,208 for the 6 month trial period.

3.1.3 Female Hygiene Product Capture

The average number of female hygiene products used per household was not recorded as part of the survey. The main types of female hygiene products used by the AHP Users willing to take part in the trial are displayed in Figure 2.

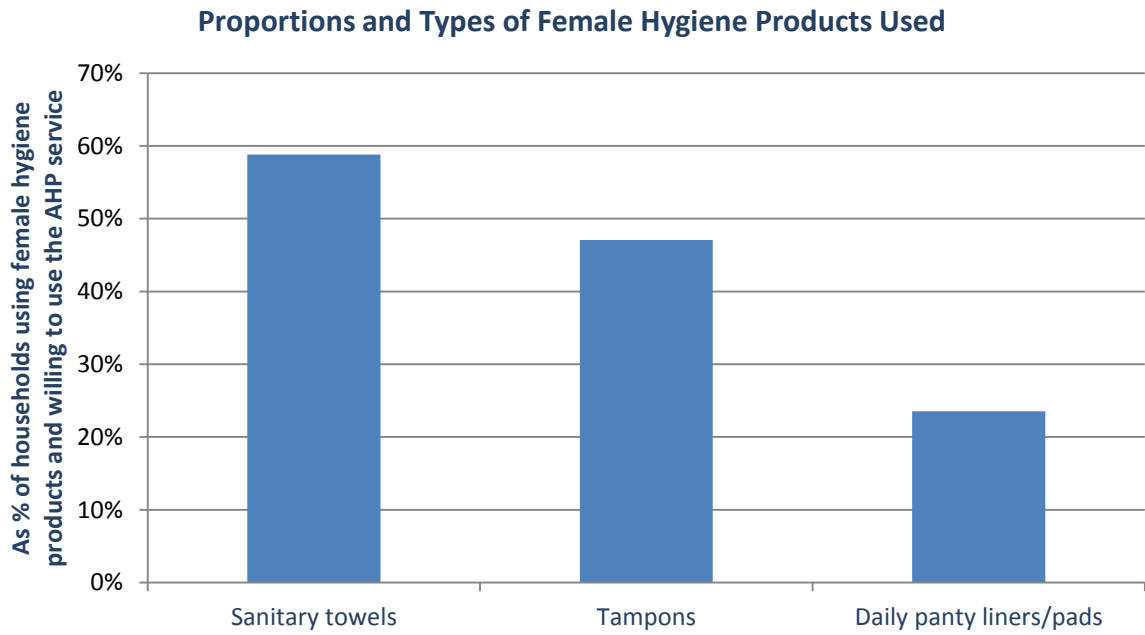


Figure 2
Proportions and Types of Female Hygiene Products Used by AHP Users willing to use the AHP Service

3.2 Acceptability of Proposed Service

52% of current AHP users indicated they would find the service either acceptable or very acceptable as shown in Figure 3. 14% of respondents answered that the service would not be acceptable with a further 28% undecided.

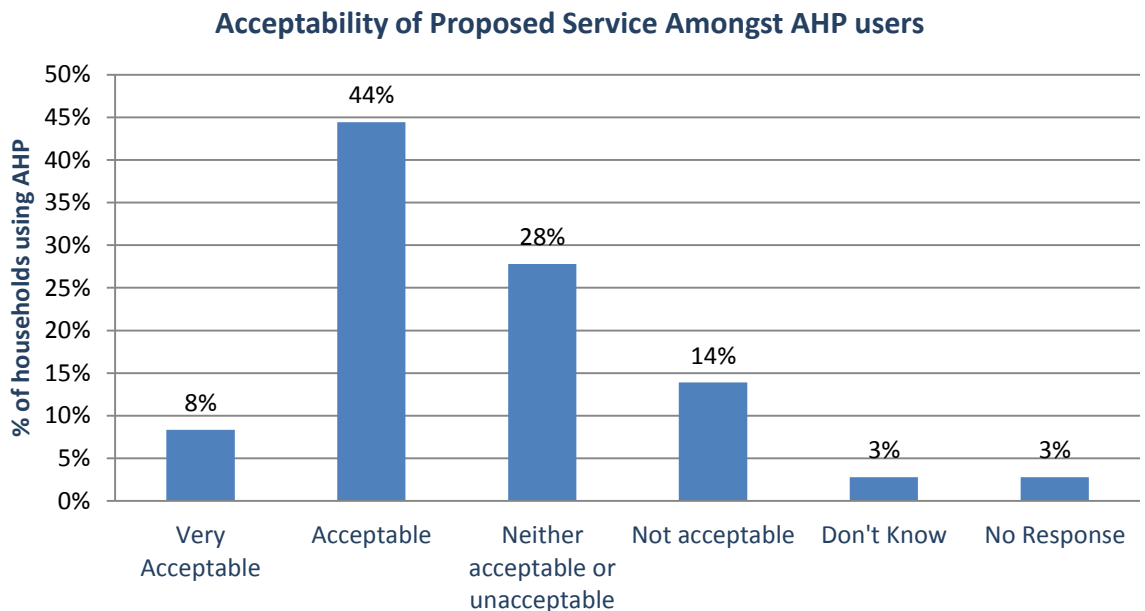


Figure 3
Acceptability of Proposed Service among AHP Users in Coatbridge, North Lanarkshire

3.3 Willingness to Use the Service

67% of households indicated they were willing to use the service, 19% were not willing and 14% were undecided. The reasons given for not willing to use the service were mostly issues associated with the transportation of AHP to the Recycling Centre at Stobcross.

3.4 Benefits of Using the Service

The key benefits of this new service identified by householders are presented in Figure 4. The main responses identified were that there were benefits to the environment, it would reduce waste in the normal bin, and provide additional capacity, be better for landfill, and be more hygienic. Other comments received included that it would be easy to use, there would be a feel good factor associated with it, there would be less smell, would avoid blockages and that it was better to have a separate system for these types of products.

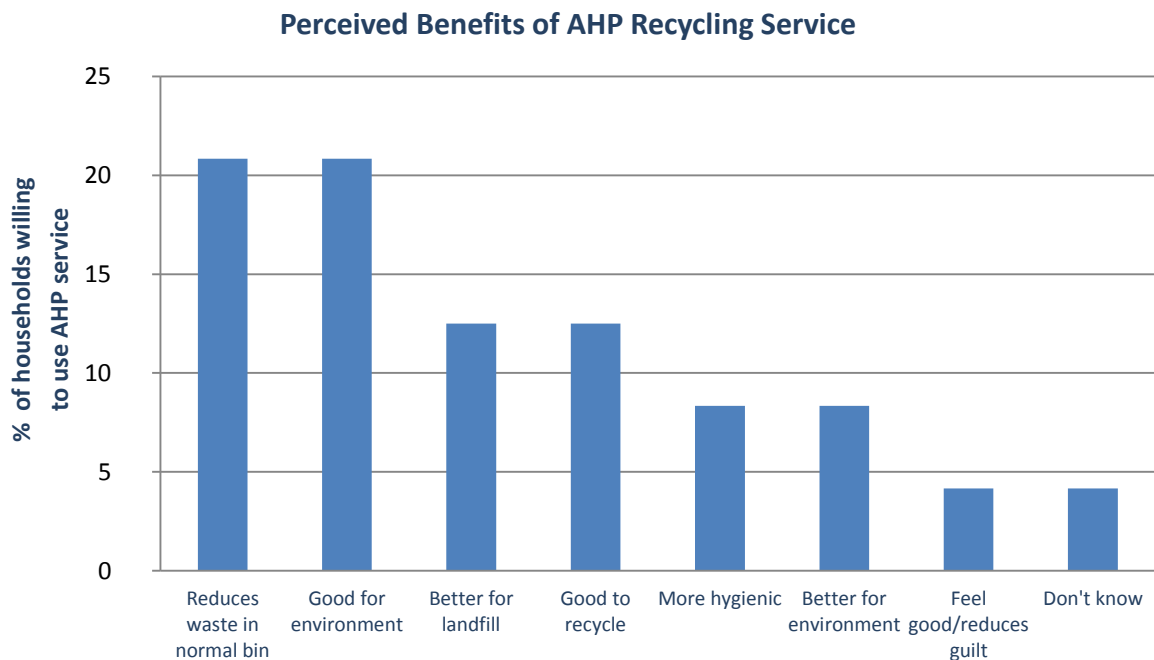


Figure 4

Perceived Benefits of AHP Recycling Service among the AHP Users Willing to Use the Service

3.5 Perceived Concerns

33% of the households willing to use the service raised some concerns; the main concern was the transportation of waste to the Recycling Centre (50%); other concerns included the problem of storing used products (25%), and smell (25%) and hygiene (25%) concerns.

The main reasons identified among the households not willing to take part in the AHP trials would be to provide an alternative service ; namely a free kerbside collection service with suitable containers.

3.6 Communication and Information Requirements

Households were asked a series of questions to identify what the most suitable type and form of communications should be to encourage them to use this new recycling service.

3.6.1 Information Requirements

Approximately 63% of households suggested types of information that would help them to effectively recycle their AHP products; as detailed in Figure 5.

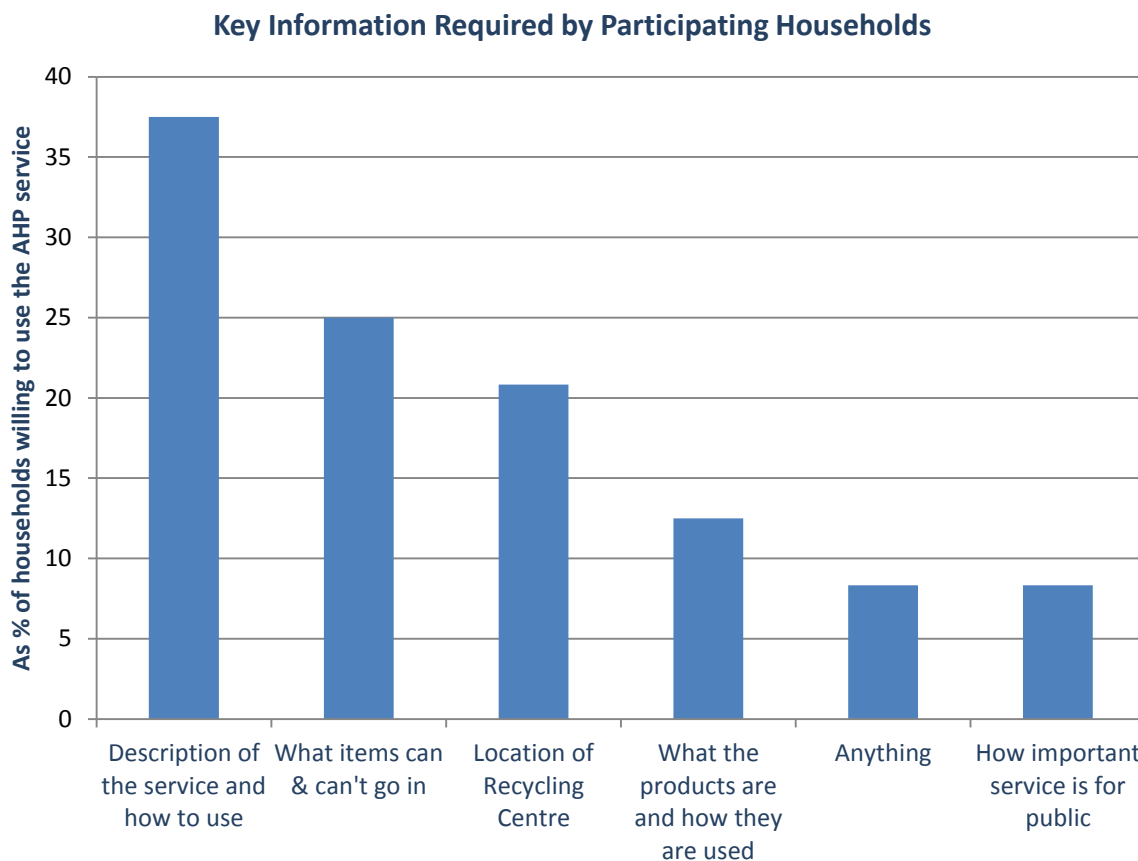


Figure 5

Key Information from Households Using AHP and Willing to Use the Service

The main types of information requested focused on the practical use of the new service; the description of the service and how to use it, what AHP materials could be recycled, the location of the Recycling Centre, and how the materials are recycled. Other comments included that people should be told about how important the service is for the public in the long term.

3.6.2 Key Messages

When asked what the key messages should be to encourage the public to participate in this new AHP-recycling service; households focused on the environmental benefits as displayed in Figure 6.

Suggested Key Messages for AHP Communications

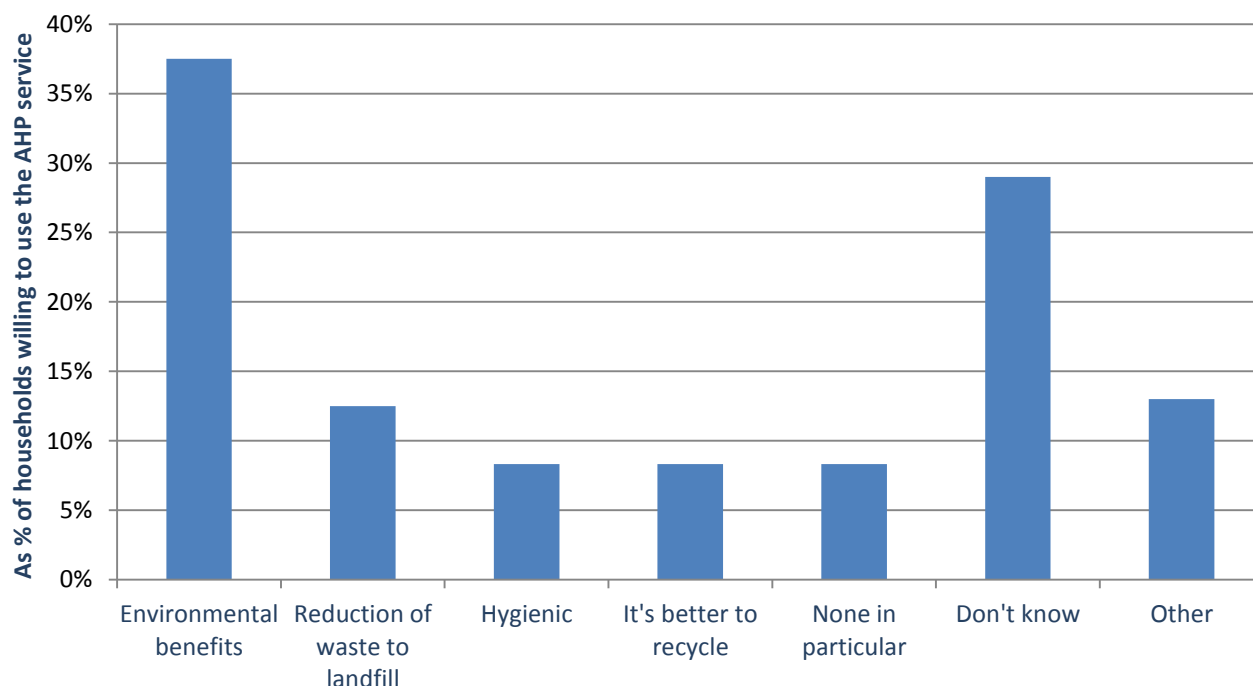


Figure 6
Key Messages Identified from Households Using AHP and Willing to Use the Service

Other messages identified by one or two households included that it was important for future generations, it was a better alternative than land filling this type of waste, and it would increase the capacity of the residual bin.

3.6.3 Preferred Communication Formats

Households were asked what forms of communication they would prefer to receive information about the new AHP service; in addition to an introductory leaflet. The majority of people did not have a preference (84%). Of those who did the other methods suggested were e-mail (75%), and via the Council web site (25%).

3.6.4 Community Engagement Opportunities

When asked to identify other community groups, organisations or opportunities for wider community engagement for the AHP-recycling schemes, 63% of people did not respond. The most common suggestions identified by the remaining households were Community Centres (33%), Councils (22%), and Nurseries (22%). The Church, Enable Scotland, Hospital and Mother and Toddlers Group were mentioned by one person each.

3.7 Further Comments and Opinions for the AHP Trials

All householders were asked if they had any further comments they would like to make about the proposed AHP trial in Coatbridge, North Lanarkshire. 12% of those provided comment:

- 40% thought it was a good idea/worthwhile;
- 13% thought it was also a good idea but had some reservations;
- 10% highlighted transport issues; and
- 10% would prefer a regular kerbside collection service rather than having to take these materials to a Recycling Centre.

3.8 Opinion of the AHP Trials among the Non-AHP Users

Households who were not currently using AHP were asked to give their opinions on the overall acceptability of the scheme as well as the perceived concerns and benefits. The overall acceptability was similar between the Users and Non-Users of AHP, with levels of acceptability of 52% and 48% respectively.

The main concern identified by the Non-AHP Users and the AHP users was the practicality of transporting the waste to the Recycling Centre; with the Non-Users significantly more concerned. The Users were more concerned about hygiene and smell, with concerns over the storage of the products being similar between the two groups.

The benefits of recycling AHP identified by both the AHP and Non-AHP users again were similar. The primary benefit recognised by both related to the environmental benefits; However the benefit of a reduction in waste going to the residual bin was more commonly recalled by the AHP Users (21% versus 11%).

Appendix 20 – North Lanarkshire Council Community Engagement Record

Community Engagement Record			No. Left		Address
Date	Area	Type	Leaflets	Posters	
31/07/2012	Kirshaws	Church	4	1	Woodland Avenue
31/07/2012	Kirshaws	Primary School	2	1	Old Monkland Rd
31/07/2012	Kirshaws	Convenience store	2	1	Old Monkland Rd
31/07/2012	Kirshaws	Convenience store	2	1	Dunure Street
31/07/2012	Kirshaws	Hair Salon	2	1	Dunure Street
31/07/2012	Kirshaws	Florists	3	1	Dunure Street
31/07/2012	Kirshaws	Community Neighbourhood Centre	2	2	Haddington Way
31/07/2012	Kirshaws	Community Park Centre	2	2	Scarhill Street
31/07/2012	Old Monklands	Community Centre	2	2	Lismore Drive
31/07/2012	Old Monklands	Newsagent	2	1	Woodside Street
31/07/2012	Old Monklands	Library	2	1	Lismore Drive
31/07/2012	Old Monklands	Convenience Store	2	1	Lismore Drive
31/07/2012	Old Monklands	Internet Cafe	2	1	Lismore Drive
31/07/2012	Summerlee	Manor Park Nursery	6	1	Canmore Street
31/07/2012	Summerlee	Mini Market	4	1	Corsewell Street
31/07/2012	Summerlee	Keystore	6	1	Corsewell Street
31/07/2012	Summerlee	Day Today Store	1	1	King street
31/07/2012	Summerlee	Blairhill Dental Practice	4	1	Blairhill street
31/08/2012	Summerlee	Piccollo	5	1	Blair Road
31/08/2012	Summerlee	St Ambrose School	3	2	Blair Road
31/08/2012	Dundyvan	Eden Dental	0	1	Dundyvan Road
31/08/2012	Dundyvan	KS Nursery	5	1	Dundyvan Road
31/08/2012	Dundyvan	Newsagents	3	1	Dundyvan Road
31/08/2012	Dundyvan	St Marys Primary	5	1	Dundyvan & Hozier St
31/08/2012	Kirshaws	Dentist	5	1	Scarhill Street
31/08/2012	Kirshaws	St Marys Primary	5	1	Old Monkland Rd
31/08/2012	Kirshaws	St Timothys Primary	0	1	Old Monkland Rd
31/08/2012	Kirshaws	St Timothys Nursery	5	1	Old Monkland Rd
31/08/2012	Kirshaws	St Andrews Community Centre	5	2	Old Monkland Rd
31/08/2012	Kirshaws	Newsagents	3	1	Old Monkland Rd

94

35

Appendix 21 - North Lanarkshire Council Post-Trial Survey

North Lanarkshire Council - Coatbridge

AHP Post Trial Survey

May 2013

Report Submitted to ZWS

3.0 Coatbridge Results

3.1 Information on the AHP Trial Scheme in Coatbridge

Households who opted in to the Absorbent Hygiene Product trial scheme in Coatbridge, North Lanarkshire received an initial supply of five blue recycling sacks which were posted to householders. These sacks, when nearly full, were taken to the Stobcross Recycling Centre in Coatbridge, North Lanarkshire, where the Recycling Containers were. Recycling Centre Attendants provided the public with further free recycling sacks (up to 5 at a time) upon request.

The actual number of surveys carried out in Coatbridge was 38, 20 of the householders had opted in and 18 had not. This number allowed for a statistically robust sample with a confidence of 95% for those households who opted in and those who did not.

The following section refers to findings from the AHP Post Trial Survey.

3.2 Survey Profile

The survey profile for Coatbridge is displayed in Table 1.0.

Table 1.0
Survey Profile

	Number of Households Opted In	Number of Households Who Did Not Opt In
Nappies	13	5
IC	4	3
Both	0	0
None	3*	10
Total	20	18

**Opt ins who were not using AHP can be explained by those households who were no longer using AHP and is explored later in this report.*

In this report the households have been categorised into the following groups

- Those who did not opt in;
- Those who did opt in;
 - Those who opted in but never used the service;
 - Those who opted in but were no longer using the service; and
 - Those who continued to use the service.

3.7 Those Who Had Opted In

The following section refers to all of the households who had chosen to opt in.

3.7.1 Reasons for Opting In

Environmental benefits appear to have been very important in householders' decisions to opt in, as detailed in Figure 1.0.

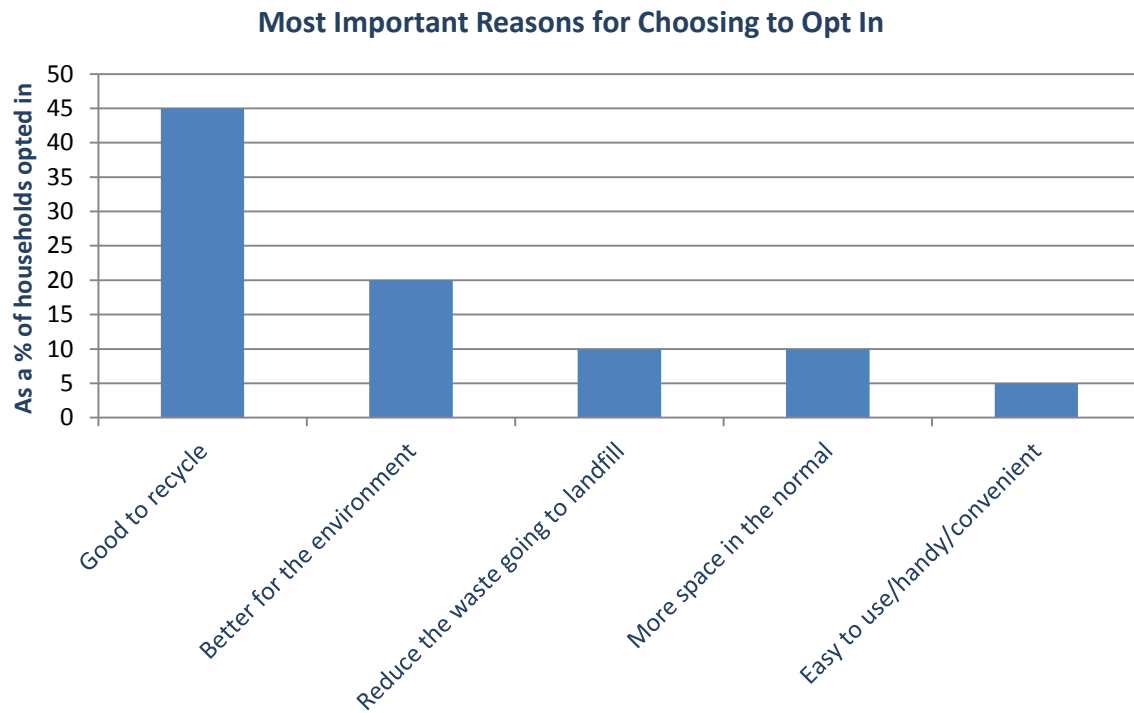


Figure 1.0
Reasons for Choosing to Opt In to the AHP Trial

3.7.2 To what extent the Service Met Respondents' Expectations

Overall the service met householders' expectations. Most respondents who opted in stated that the service was 'Better than expected' (20%) or 'About what [they] expected' (65%). No one reported that the service was worse than they expected, as displayed in Figure 1.1.

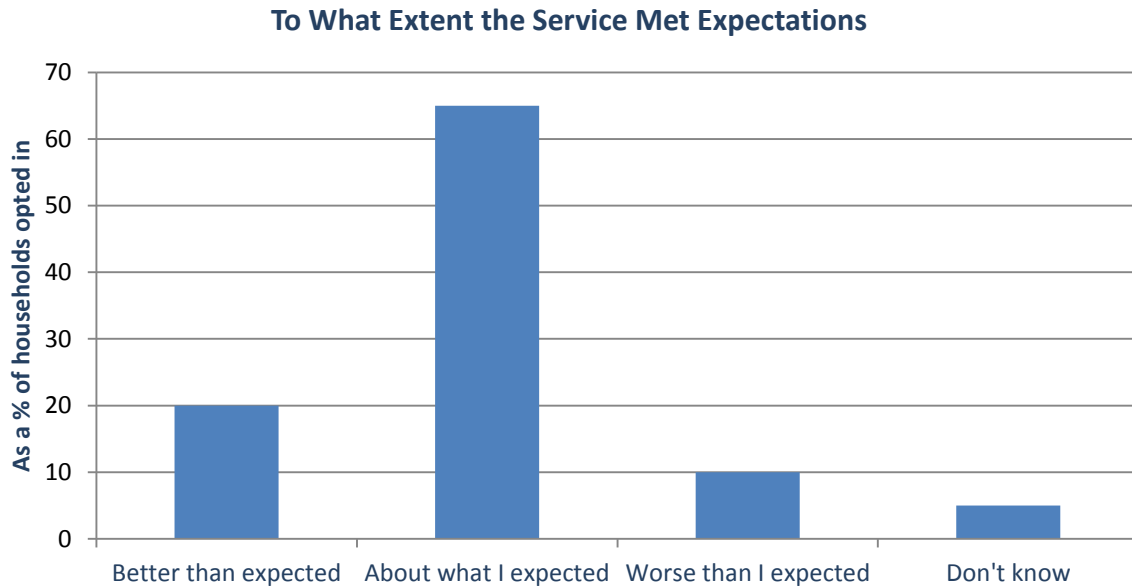


Figure 1.1

To What Extent the Service Met Expectations

3.7.3 Methods of Opting In

All of those who opted in to the trial in Coatbridge did so by phone.

3.7.4 Ease of Opting In

85% of householders in Coatbridge found the opting in process very easy or easy, as displayed in Figure 1.2.

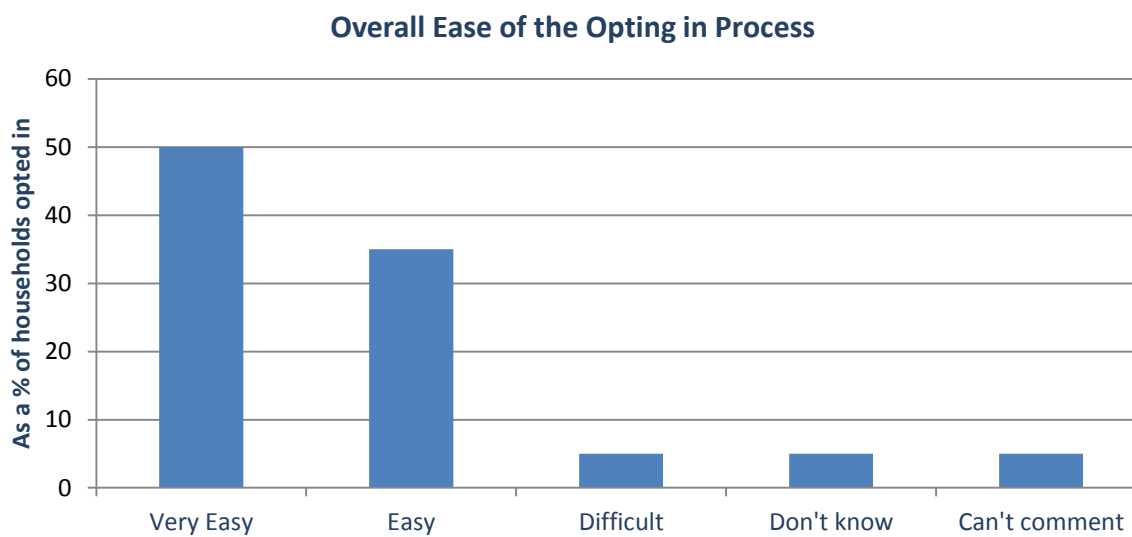


Figure 1.2

Overall Ease of the Opting in Process

Two householders had problems with the call centre, one had to call twice and the other didn't hear back.

3.7.5 How Householders got Information on How to Use the Service

Most people got information on how to use the service from the leaflet (95%), as displayed in Figure 1.3.

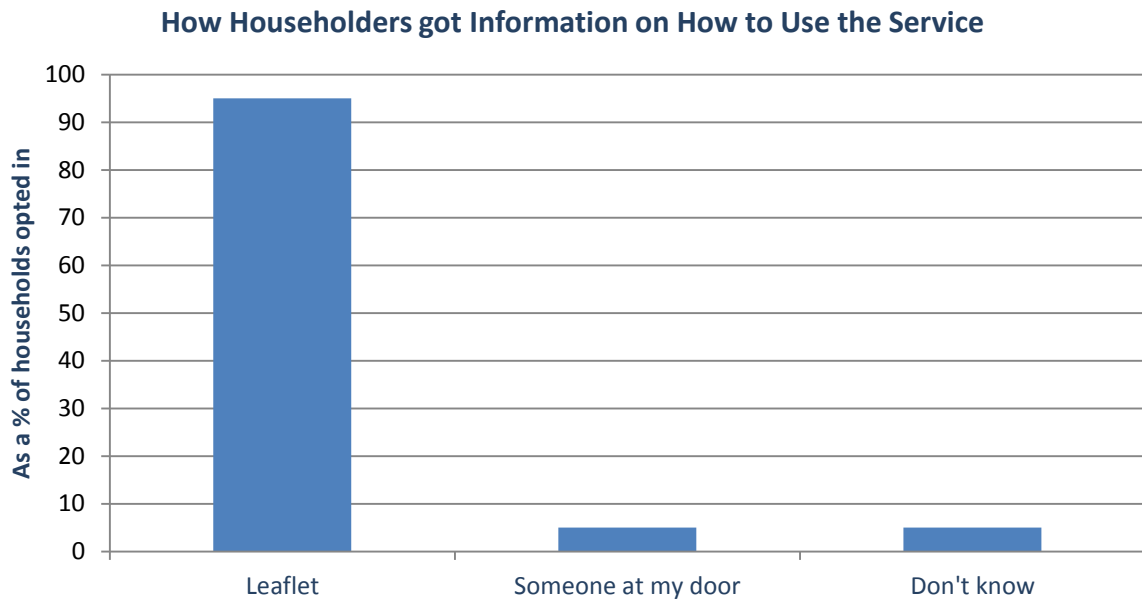


Figure 1.3
How Householders got Information on How to Use the Service

3.7.6 Whether Users Would Recommend the Service to Family and Friends

100% of the householders who opted in said that they would recommend the service to family and friends, if it was available where they live.

3.7.7 Overall Summary for Those Who Opted In

- Both environmental benefits appear to have been very important in householders' decisions to opt in;
- Most respondents who opted in stated that the service was 'Better than expected' (20%) or 'About what [they] expected' (65%).
- All of those who opted in did so by phone;
- 85% of people found the opting in process very easy or easy;
- Most people got information on how to use the service from the leaflet (95%); and
- All householders who opted in said that they would recommend the service to family and friends.

3.7.8 Service Use of Those Who Opted In

In the following section the households which opted in have been broken down into the following groups:

- Those who opted in but never used the service (3 households; 15%);
- Those who opted in but were no longer using the service (1 householder; 5%); and
- Those who continued to use the service until the time of the post trial survey (80%).

3.7.9 Those Who Opted In but Never Used the Service

There were only 3 households (2 opted in for nappies, 1 opted in for IC) in Coatbridge who opted into the service but never used it.

- If the service was improved (2 householders);
- More information on the leaflet (1 householder);
- If I had a car (1 householder);
- If there was a kerbside collection (1 householder); and
- Bin provision (1 householder).

3.7.10 Those Who Opted in but were No Longer Using the Service

Of the households which opted in only 1 householder was no longer using the service, the reasons provided for not using it anymore was:

- No longer need the service (had been using IC);

The householder would be happy to use the service again if the need arose.

3.7.11 Those who Continued to Use the Service

The following section refers to the households which opted in and were still using the service at the time of the post-survey, 80%.

3.7.11.1 AHP Sacks Used per Week

The number of AHP sacks used per week by householders is displayed in Figure 1.5.

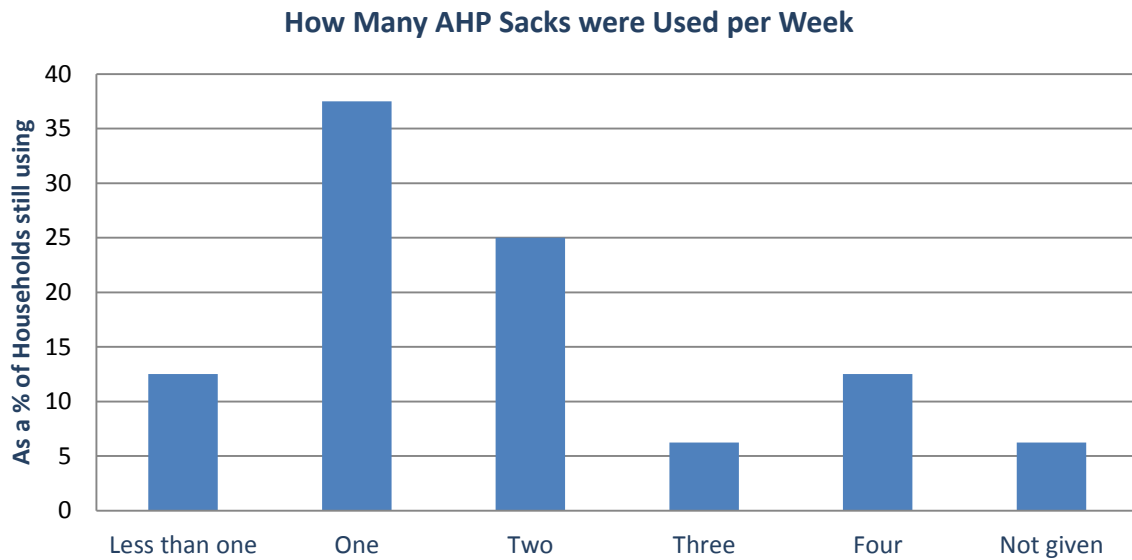


Figure 1.5

Number of AHP sacks used per week

50% used one or less than one AHP sack per week, 44% used between two and four per week.

3.7.11.2 AHP Sack Fill Level against Frequency of Taking to HWRC

The frequency that householders took sacks to the HWRC varied from multiple times per week and less than once a month, as displayed in Figure 1.6.

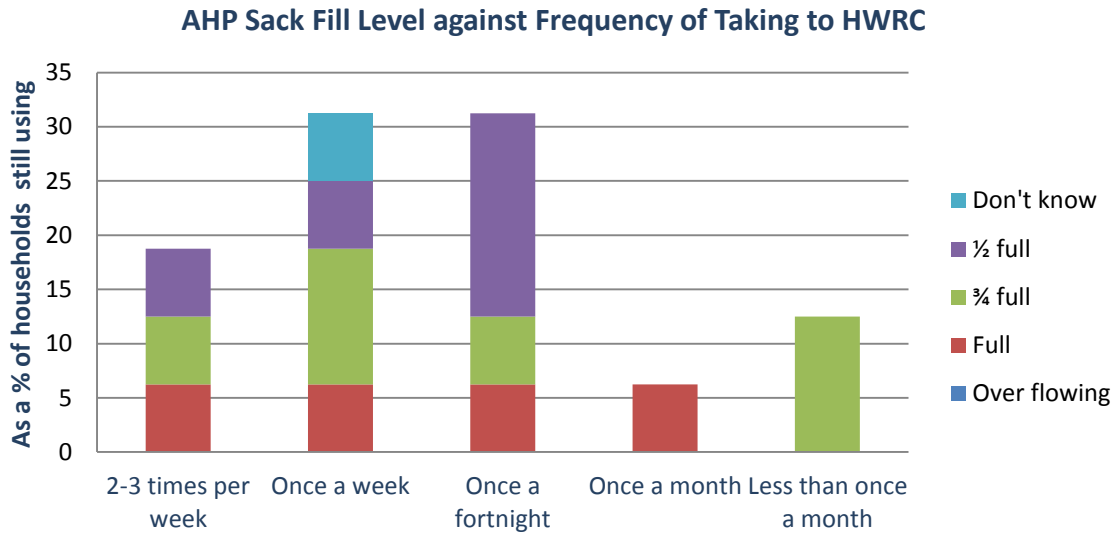


Figure 1.6
AHP Sack Fill Level against Frequency of Taking to HWRC

31% of the users who took their sacks to the HWRC weekly or more often said they were 3/4 full to full when they did so. 19% took their sacks every week when their sacks were 1/2 full of less.

3.7.11.3 AHP Sack Usage

The vast majority of householders said that the AHP sacks were used for all of their AHP waste at home, this suggests that once people started to use the AHP sacks the majority of AHP waste generated in the household was recycled. Only 1 householder reported using their normal bin for AHP waste sometimes if the sack had been put out already.

3.7.11.4 Suitability of the AHP Sacks

All householders said the sacks were suitable for collecting their AHP waste. When asked what they liked about the sacks the responses were:

- They are very strong (50%);
- Nothing in particular (44%);
- Colour (6%);
- Convenient to use (6%); and
- Size (6%).

3.7.11.5 Suggested Improvements to the AHP Sacks

Only one user experienced a problem with the sacks, they suggested stronger sacks because one had split.

3.7.11.6 Sack Storage

Most householders kept their AHP sacks outside:

- Outside (63%); and
- In the shed/garage/outhouse (31%).

Only one householder (6%) kept the sacks in a bedroom.

3.7.11.7 AHP Sack Summary

Key points:

- 50% used one or less than one AHP sack per week, 44% used between two and four per week;
- The vast majority of householders said that they used the sacks for all of their AHP waste when they were at home;
- All householders said the sacks were suitable for collecting their AHP waste; and
- 94% of householders kept their AHP sacks outside.

3.7.12 Benefits of Using the Service and Reasons for Opting In

Benefits identified with using the service were similar to reasons why householders had chosen to opt in. For those still using the service the primary benefit mentioned was its good/better for the environment (44%), as displayed in Figure 1.7.

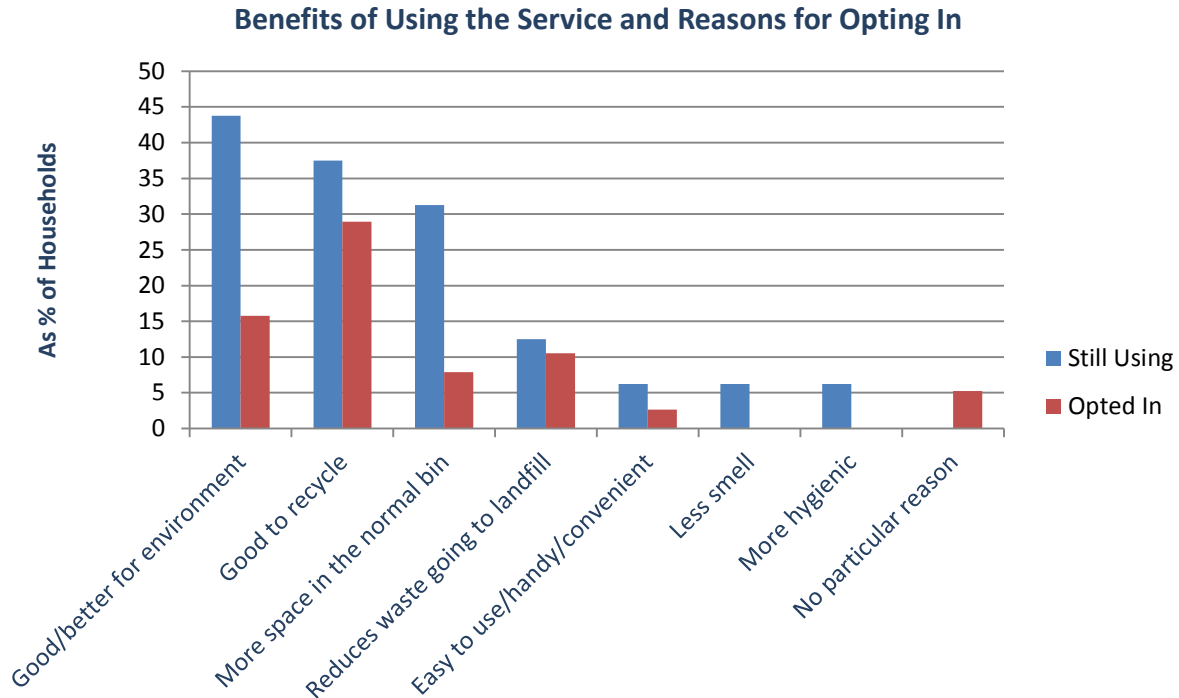


Figure 1.7

Benefits of Using the Service and Reasons for Opting In

31% of those still using the service mentioned more space in normal bin as a benefit of using the service; this was only mentioned as a reason for initially opting in by 8% of respondents.

The environmental benefits ‘Good to recycle’, ‘Good/better for the environment’ and ‘Reduces waste going to landfill’ were mentioned at least once by 69% of householders²⁷. This suggests that the recycling aspect of the service was important to the public and this appears to have been more important to those in Coatbridge than having more space in their normal bin.

²⁷ In Figure 1.8 householders were allowed to provide multiple responses.

3.7.13 Ease of Use of the Service

94% of those still using the service rated it as easy or very easy to use, as displayed in Figure 1.9.

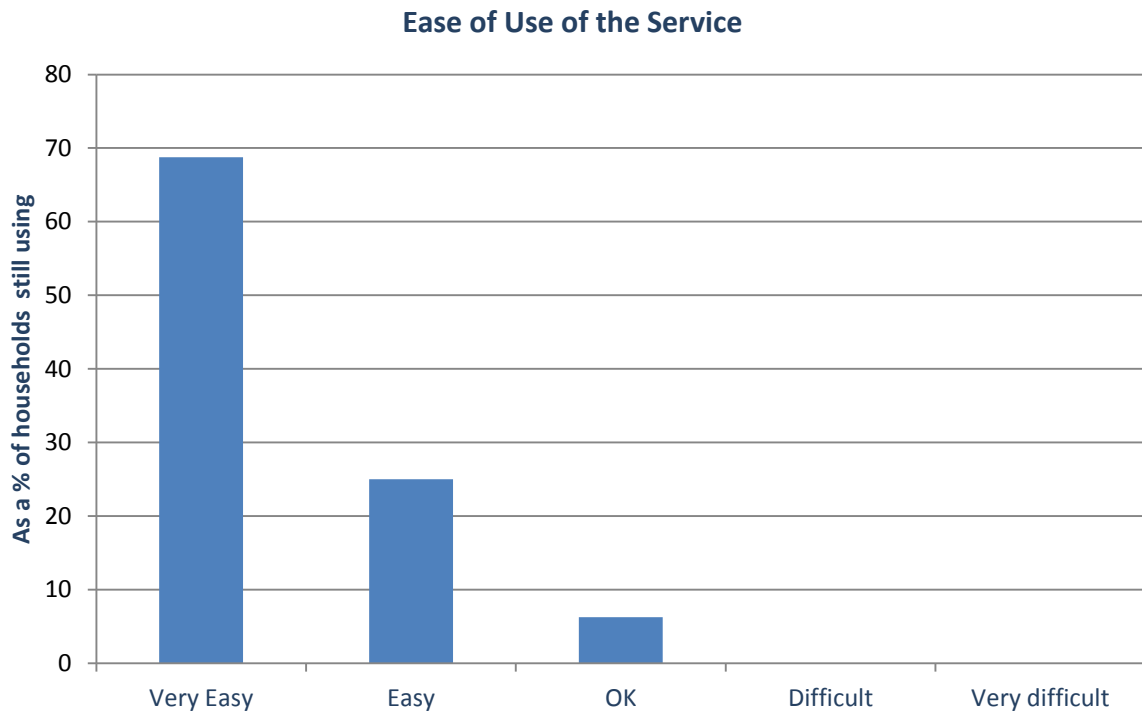


Figure 1.9

Ease of Use of the Service

3.7.14 Service Satisfaction

Satisfaction with the service was extremely high, with 100% of householders being very satisfied or satisfied with this, as displayed in Figure 1.10.

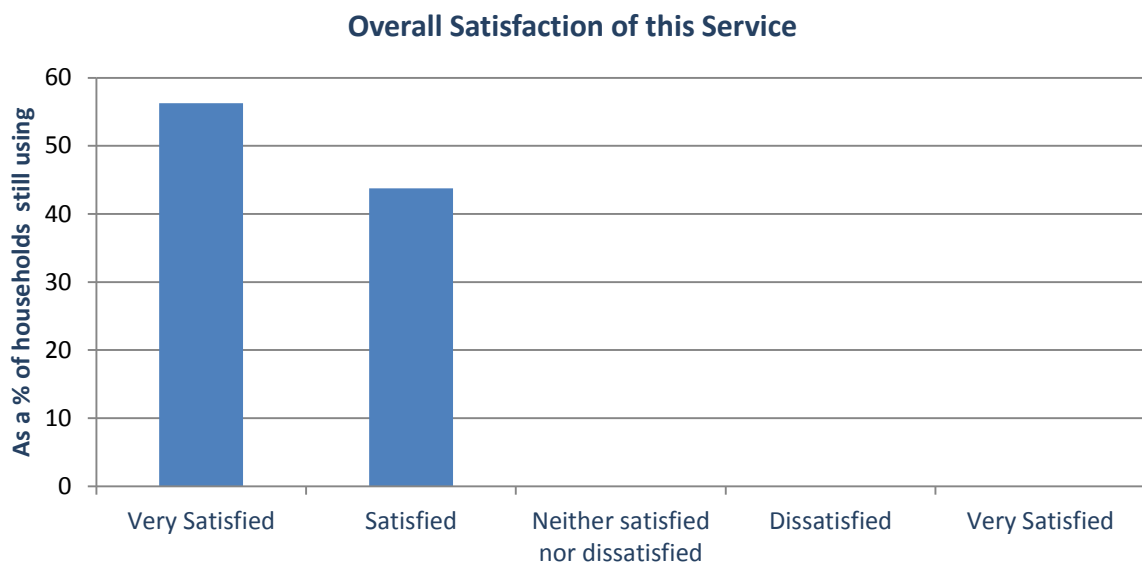


Figure 1.10

Overall Satisfaction with the Service

3.7.15 Problems when Using the Service

The majority of householders (81%) did not report any problems when using the service. The problems experienced by the remaining 19% were:

- It's difficult to get to the Recycling Centre (19%);
- Problem of storing used products (6%); and
- Council didn't provide the storage box they said they would (6%).

3.7.16 Whether Users would Opt In to the Service if it was Offered on a Permanent Basis

All of those still using the service said that they would opt into the service if it was offered on a permanent basis. This demonstrates the popularity of this trial for those who opted in, it is important to note that all of those who opted in travelled to the HWRC by car; this would not be possible for all AHP users.

3.7.17 Summary for Those Still Using the Service

- Householders appear to be motivated to use the service because of recycling and less so by having more space in their normal bin;
- 94% of those still using the service rated it as easy or very easy to use;
- Satisfaction with the service was high, with 85% of householders being very satisfied or satisfied;
- The majority of householders (81%) did not report any problems when using the service;
- 19% of those still using the service mentioned that it was difficult to get to the HWRC; and
- All of those still using the service said that they would opt into the service if it was offered on a permanent basis.

3.8 Those who had Not Opted In

The following section refers to those householders who did not opt in to the trial service.
NB: All households had been using AHP at the time of the pre-survey.

3.8.1 Reasons for Not Opting in

The following reasons were given for not opting into the service:

- Didn't have the need (39 % (22% has used nappies, 11% had used IC, 6% had used both));
- I didn't know about the service (28 %);
- Difficult to manage (17 %);
- Don't have enough waste (17 %);
- Don't have a car (11 %);
- Problem of storing used products (11 %);
- Didn't have enough information (6 %);
- Forgot to opt in (6 %);
- Hygiene concerns (6 %);
- Probably wouldn't have bothered going to the recycling centre (6 %);
- Smell (6 %); and
- The nursery is recycling nappies so don't need the service (6 %);

3.8.2 Encouragements to Use the Service

Those who did not opt in were asked what would have encouraged them to opt in and the responses were:

- Free pick up service (33 %);
- If I had more waste (28 %);
- If I'd known (28 %);
- If I need the service (17 %);
- Nothing (11 %);
- If I had a car (6 %);
- If I had another child (6 %); and
- If I had more information (6%).

3.9 Communications

North Lanarkshire Council sent a leaflet to every property in the trial area to introduce the New AHP Recycling Service. Other activities included:

- Leaflets were distributed within the area in order to raise local awareness and encourage uptake (distributed to all households);
- Posters were distributed amongst local businesses, health centres, pharmacies, nurseries and community centres;
- Discussions took place with shop-owners, librarians, pharmacists and health workers to ensure they were aware of the recycling service and understood its operation;
- Postcards were delivered to each household to reinforce how to use the service (for those who opted in).

The following section refers to all of the households which opted in to use the service.

3.9.1 Awareness of the AHP Trial

The leaflet was most effective at raising awareness of the AHP trial, 76% of householders became aware of the service from this, and other responses are displayed in Figure 1.10.

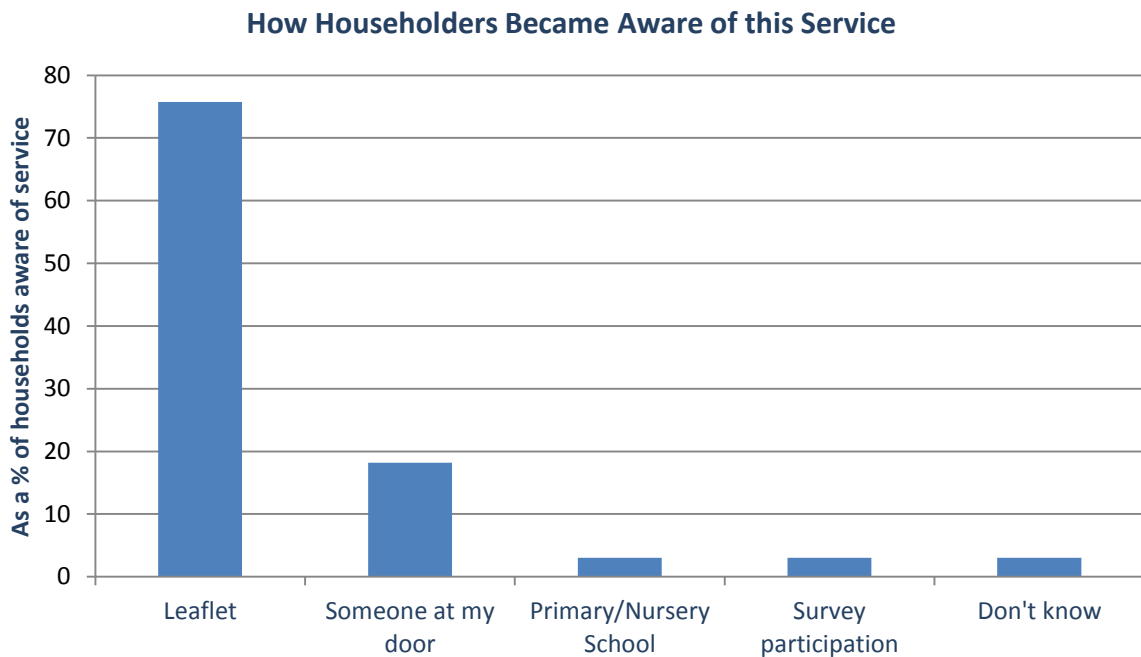


Figure 1.10
How Householders Became Aware of this Service

3.9.2 Communication Materials

3.9.2.1 Leaflet

76% of the households said they had received a leaflet through the door about the trial. When prompted with the leaflet this remained the same. Of these 90% agreed with the statement “The leaflet told me everything I need to know” and 3% disagreed and 6% didn’t know or could not remember.

24% householders who received the leaflet kept it for future reference, 55% did not and a further 21% did not know or could not remember.

3.9.2.2 Poster

11% of householders said they had seen a poster about AHP Recycling. When prompted with the poster this increased to 21%. The posters were seen at the following locations:

- Health Centre (8% of householders)
- Community Centre (5% of all households); and
- On a lorry (3%).

5% of householders had seen a poster but could not remember where.

3.9.2.3 Presentation

21% of households said that someone had spoken to them about the new service. This took place by the following methods:

- Someone came to the door (16%); and
- Word of Mouth from friend/family/neighbour/colleague (5%).

3.9.2.4 Bin Decal

35% of households who opted in said they had seen a sticker on the AHP container at the HWRC, 86% of them found the sticker useful. No one said that they were unhappy for this to be displayed publically.

3.9.2.5 Postcard

13% of all households said they had received a postcard about the trial. When prompted with the postcard this percentage increased to 24%. 78% who received the postcard agreed with the statement “The postcard told me everything I need to know”.

3.9.3 Recycling Nappies/Incontinence Products is Good for the Environment

92% of householders agreed or strongly agreed with the statement “Recycling nappies/Incontinence Products is Good for the Environment”, as displayed in Figure 1.11.

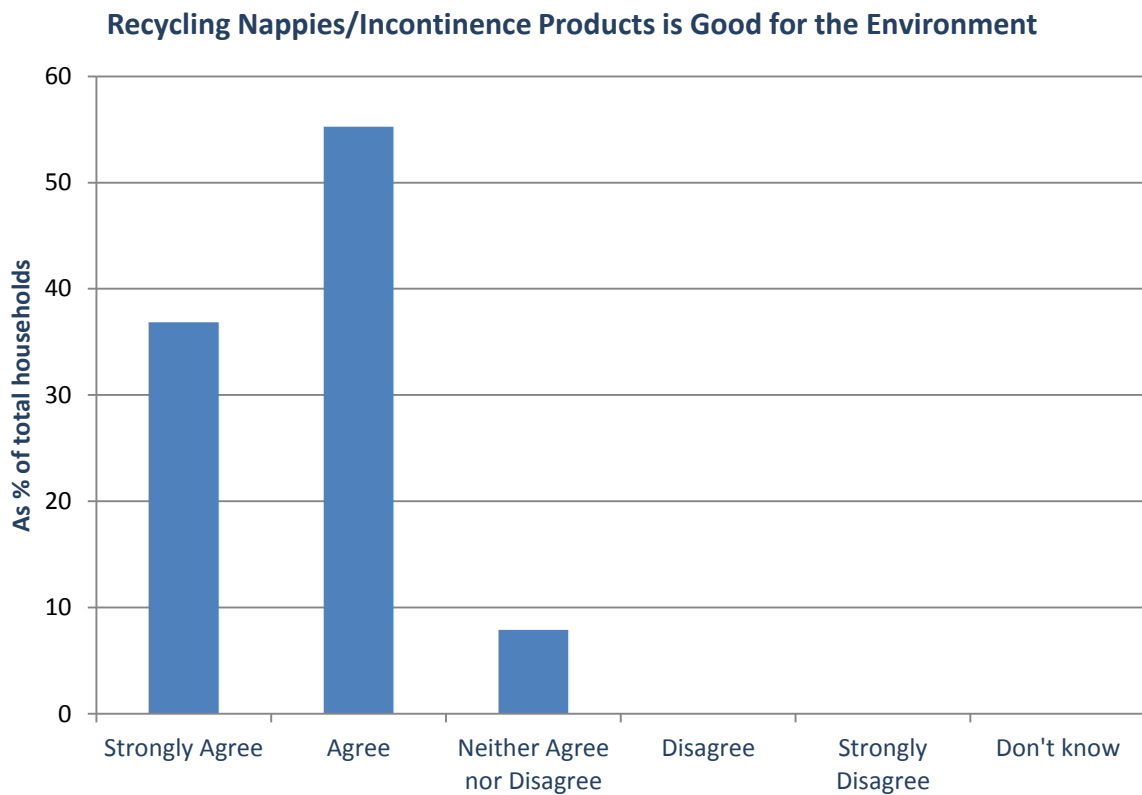


Figure 1.11
Recycling Nappies/Incontinence Products is Good for the Environment

3.9.4 Knowledge of What AHP Products can be Recycled into

Although about 69% of householders who opted in appeared to be motivated by recycling or other environmental benefits, knowledge of what AHP products can be turned into was very poor with only 13% of household providing a correct answer. 84% of householders responded with ‘don’t know’. Recall of correct and incorrect materials is listed below:

- Benches (8%);
- Garden furniture (8%);
- Cardboard (5%); and
- Other (3%).

3.9.5 Further Comments and Opinions on the AHP Trials

All householders were asked if they had any further comments they would like to make about the AHP trial in North Lanarkshire:

- 32% said it was a good service/idea and/or they hope it continued;
- 13% mentioned a kerbside collection; and
- 11% mentioned difficulty travelling to the HWRC.

Appendix 22 - Fife Council Hazard and Risk Assessment

AHP Collection Trial Logistics

Fife Council

Hazard and Risk Assessment

June 2012

1 Hazard and risk assessment

1.1 Offensive/hygiene waste

For the process of the hazard and risk assessment the AHP has been treated as hygiene / offensive waste and not clinical waste.

Offensive/hygiene waste is defined by the Department of Health as waste that:

- may cause offence due to the presence of recognisable healthcare waste items or body fluids;
- does not meet the definition of an infectious waste;
- does not possess any hazardous properties; and
- is not identified by the producer, or holder, as needing disinfection, or any other treatment, to reduce the number of microorganisms present. ¹

Offensive/hygiene waste (previously known as sanpro) is not 'special waste' under environmental legislation if:

- it is considered non-infectious;
- does not require specialist treatment or disposal. ²

The Department of Health categorise offensive waste from municipal sources as EWC code 20 01 99.

1.2 Risks and hazards

Offensive/hygiene waste has the potential to harm the health of those exposed to it. Typical effects can be:

- skin/eye infections (e.g. conjunctivitis);
- Gastroenteritis (symptoms include stomach cramps, diarrhoea and vomiting) ³.

The waste should not be compacted unless in accordance with the conditions of an environmental permit/waste management licence. Procedures should be in place to contain, minimise, and monitor potential bio-aerosol release.

Table 1 outlines the aspects for consideration outlined by the HSE when considering necessary control measures for handling offensive/hygiene waste.

Table 1 AHP control measures

Element of AHP handling	Considerations in relation to control measures
Collection:	<ul style="list-style-type: none"> • bag/receptacle collection procedures and clear roles and responsibilities for all staff; • collections frequent enough to ensure the storage capacity of the site is not exceeded; • effective recording of the receipt and transfer of waste materials (this can help in the identification of poor segregation and labelling by producers and clients); • handling of bags kept to a minimum and materials transferred, transported or handled to prevent rupturing of bags. Bags should not be manually compacted to increase capacity; • collectors/loaders only removing bags that are clearly marked/labelled; • arrangements for reporting spillages, inadequate or incorrect packaging and labelling of excessively heavy consignments. collectors/loaders need to know who to tell and

¹ DoH (2011) Safe Management of Healthcare Waste

² HSE – Managing offensive/hygiene waste

³ HSE – Managing offensive/hygiene waste

	<p>how to contact them;</p> <ul style="list-style-type: none"> • a safe system for avoiding spillages during transportation. Placing bags within wheeled bins or other suitable rigid containers, or loading them directly into leak- proof vehicles or containers, can reduce the risk of spillage. Spillages/leakage of wastes stored at the customer site should be dealt with by site staff following their own organisation clean-up procedures; • provision of appropriate personal protective equipment; • what to do in an emergency/sharps injury, as well as fire and first aid procedures.
Lifting and handling:	<ul style="list-style-type: none"> • Wheeled bins are preferable to bags as they can reduce the risk of manual handling and sharps injuries. • Bags should not be overfilled, e.g. be more than three quarters full, and should be tied at the neck. Contents should be double bagged if there is a possibility of leakage. • Collectors/loaders should: <ul style="list-style-type: none"> ○ handle offensive (and domestic) waste bags by the neck and should not drop, drag or throw bags; ○ not accept or remove overfilled or leaking bags.
Storage and opening of bags:	<ul style="list-style-type: none"> • Offensive/hygiene wastes should be stored in designated areas prior to treatment or disposal. • Opening of bags should be avoided. Effective segregation at source will eliminate/reduce the need to open bags. • Where bags have to be opened then mechanical aides or handled tools can reduce the risk of injury and contact with potentially harmful material. • Have procedures for the handling and packaging of sharps and other contra-materials that have been incorrectly placed within the offensive/hygiene waste stream. This will include provision of dedicated/labelled receptacles, tools and personal protective equipment.
Minimising infection risk:	<ul style="list-style-type: none"> • Brief collection crew and driver of risks to health and ways in which they can pick up infections. • Systems to report damaged equipment and get it replaced. • Access to first aid kit – all exposed wounds should be covered. • Changing out of contaminated clothing before eating, drinking or smoking. • Clean contaminated equipment on site. • Report illnesses to employer. • Provide appropriate equipment for each task such as litter-picking tongs, hand brushes, shovels and rigid containers (for the removal of sharps and other hazardous/infectious waste). It may be necessary to implement procedures for cleaning and disinfecting equipment (e.g. picking tongs). • Make sure personal hygiene regime highlighted. • Vaccinations: Where effective vaccines are available against microorganisms to which employees may be exposed, then employers are required to make them available, free of charge, to employees. Employees should be informed of the benefits and drawbacks of both vaccination and non-vaccination. It is recommended that employers keep a vaccination record. Remember that although it is a useful additional measure, vaccination/inoculation is not a substitute for other control measures.

Source: HSE (01/09) Managing Offensive/Hygiene Wastes, HSE (2003) Infection at Work: Controlling Risk

1.3 Methodology

For each stage of the collection system employed a hazard and risk assessment has been undertaken. The risk assessment has been based on a review of the existing risk assessments in place at each of the Councils for collection, transfer and bulking.

Many of the possible hazards in relation to collection of AHPs at HWRC are already identified in the Fife risk assessment documents provided e.g. in relation to vehicle movements on site and container loading and unloading. Additional hazards are identified in the table below.

Broadly each risk assessment followed the standard HSE five-step programme for risk assessment:

1. Identify hazards
2. Decide who may be harmed and how
3. Evaluate the risk and decide on precautions
4. Record findings
5. Review and update where necessary – this included a gap analysis to identify the necessary precautions already in place in existing relevant risk assessments.

2 Risk Assessment

2.1 Collection

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Storage capacity at HWRC is exceeded so offensive/hygiene waste not effectively contained – possible bio-aerosol/infection risk	Recycling Centre Assistant Collection Contractor Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Daily collections 	3	9	<ul style="list-style-type: none"> HWRC staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. <ul style="list-style-type: none"> Procedure in place for HWRC staff to request additional collection if bins become full to capacity. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Offensive / hygiene waste placed in wrong collection container by HHS – possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Site employees receive training and information on good personal hygiene standards. Site employees receive manual handling training. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. Collection in red sacks Clear signage for containers on site. 	4	12	<ul style="list-style-type: none"> HWRC staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; <ul style="list-style-type: none"> infection risk; and segregation. <ul style="list-style-type: none"> HWRC staff monitor members of the public and direct to correct container. Procedure in place for HWRC staff to remove any bags placed in wrong containers. <ul style="list-style-type: none"> Procedure in place to report illnesses. Staff vaccinations kept up to date. 	3	9
Bags overfilled by member of public causing leakage or spillage on-site – possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. 	2	6	<ul style="list-style-type: none"> Additional collection sacks provided for staff use on site. Clean-up procedures. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Bags split as member of public places bags in container - possible bio-aerosol/infection risk	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Appropriate PPE is provided and worn. Shower facilities are available. Containers provide effective containment. 	2	6	<ul style="list-style-type: none"> Additional collection sacks provided for staff use on site. Clean-up procedures. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Leakage or spillage on outside of collection container bringing users into contact with material.	Recycling Centre Assistant Member of the public	3	<ul style="list-style-type: none"> Housekeeping equipment is available. 	4	12	<ul style="list-style-type: none"> Monitoring cleanliness of containers. Regular cleaning of containers. 	2	6
Infection through minor cuts and abrasions while handling AHP waste.	Recycling Centre Assistant	3	<ul style="list-style-type: none"> First Aid Kits are located at all Recycling Centres. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Shower facilities are available. 	3	9	<ul style="list-style-type: none"> Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Infection through eating, drinking and smoking after handling AHP waste	Recycling Centre Assistant	3	<ul style="list-style-type: none"> Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Shower facilities are available. 	3	9	<ul style="list-style-type: none"> Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6

2.2 Transfer

Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
Waste unloaded in wrong area without effective containment - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> • Housekeeping equipment is available. • Site employees receive training and information on good personal hygiene standards. • Site employees receive manual handling training. • Washing facilities provided. • Appropriate PPE is provided and worn. • Shower facilities are available. 	4	12	<ul style="list-style-type: none"> • Driver/collection crew staff briefed on new collection. • Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; and ○ segregation. • Clear signage of segregation area. • Clean-up procedure. • Clean-up equipment provided. • Procedure in place to report illnesses. • Staff vaccinations kept up to date. 	2	6
Bags rupture on transfer in vehicle - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> • Housekeeping equipment is available. • Site employees receive training and information on good personal hygiene standards. • Site employees receive manual handling training. • Washing facilities provided. • Appropriate PPE is provided and worn. • Shower facilities are available. 	4	12	<ul style="list-style-type: none"> • Driver/collection crew staff briefed on new collection. • Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; and ○ segregation. • Clear signage of segregation area. • Clean-up procedure. • Clean-up equipment provided. • Procedure in place to report illnesses. • Staff vaccinations kept up to date 	3	9

Bags fall out of vehicle on transfer to containment container - possible bio-aerosol/infection risk	Vehicle crew Transfer station staff	3	<ul style="list-style-type: none"> • Housekeeping equipment is available. • Site employees receive training and information on good personal hygiene standards. • Site employees receive manual handling training. • Washing facilities provided. • Appropriate PPE is provided and worn. • Shower facilities are available. 	4	12	<ul style="list-style-type: none"> • Driver/collection crew staff briefed on new collection. • Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> ○ roles and responsibilities; ○ infection risk; and ○ segregation. • Clear signage of segregation area. • Clean-up procedure. • Clean-up equipment provided. • Procedure in place to report illnesses. 	3	9
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Hazard / Harm	Persons at Risk / Persons Affected	Probable Loss / Severity	Existing Controls / Planned Control Measures	Likelihood	Risk Score / Residual Risk	Further Controls Advised	Likelihood	Risk Score / Residual Risk
						<ul style="list-style-type: none"> Staff vaccinations kept up to date 		
Clinical waste identified in waste stream	Transfer station staff	4	<ul style="list-style-type: none"> Housekeeping equipment is available. Appropriate PPE is provided and worn. RCA's are trained to identify common hazardous substances. <ul style="list-style-type: none"> Attendants are issued with plastic aprons, gauntlets and visor. 	3	12	<ul style="list-style-type: none"> Procedure for separation, containment and disposal of any unexpected clinical waste arising. 	3	12
Odour from storage containers	Transfer station staff	1	<ul style="list-style-type: none"> Closed containment. Storage of less than one week. 	3	3	<ul style="list-style-type: none"> Procedure for reporting complaints. 	3	3
Infection through minor cuts and abrasions while handling AHP waste.	Transfer station staff	3	<ul style="list-style-type: none"> First Aid Kits are located at all Recycling Centres. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Shower facilities are available. 	3	9	<ul style="list-style-type: none"> Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6
Infection through eating, drinking and smoking after handling AHP waste	Transfer station staff	3	<ul style="list-style-type: none"> First Aid Kits are located at all Recycling Centres. Site employees receive training and information on good personal hygiene standards. Washing facilities provided. Shower facilities are available. 	3	9	<ul style="list-style-type: none"> Transfer station staff briefed on new collection including: <ul style="list-style-type: none"> roles and responsibilities; infection risk; and segregation. Procedure in place to report illnesses. Staff vaccinations kept up to date. 	2	6

2.3 Reference documents

- HSE (Revised 06/11) Five steps to risk assessment
- HSE (01/09) Managing Offensive/Hygiene Wastes
- HSE (04/09) Safe Waste and Recycling Collection Services
- Department of Health (2011) Safe Management of Healthcare Waste
- HSE (2003) Infection at Work: Controlling Risk
- HSE (10/03) INDG197 - Working with Sewage: The Health Hazards
- HSE. INDG1415 - Stay Clean, Stay Healthy: Looking after health in waste industry
- NHS Lothian (2011) Infection Prevention and Control Manual
- Scottish Health Technical Note 3 (2010) NHS Scotland Waste Management Guidance
- Sniffer (2007) Best Practice Guidance for the Management of Hygiene Waste for Key Producers in Northern Ireland and Scotland

Appendix 23 - Fife Council AHP Pre-Trial Survey

Fife Council

AHP Pre Trial Survey (Dunfermline)

June 2012

Report Submitted to ZWS

1.0 Introduction: The Trial Scheme

Households who opt in to the Absorbent Hygiene Product trial scheme in Dunfermline will receive an initial supply of five red recycling sacks which would be posted to the house. These sacks once nearly full would be taken to the Household Waste Recycling Centre at Well wood past Queen Anne High School. At the Centre, Recycling Centre Attendants will signpost the public to the specific AHP containers located at the Centre. The householder will then be able to collect further recycling sacks (up to 5 per visit) from the Recycling Centre attendant.

2.0 Methodology

250 households were surveyed in Dunfermline, in order to obtain a statistically representative sample of housing type and age demographics, as detailed in Table 1. All surveys took place in specified areas in and around Dunfermline as outlined in Table 2.

Table 62

Survey Plan Showing Property Type and Age Demographics

Postcode Sector	Housing Type Profile				Total Surveys	Age Group Profile			
	Detached	Semi	Terrace	Flat		18-29	30-44	45-59	60+
Total	72	64	41	73	250	49	60	65	76
KY12 0	19	18	12	30					
KY12 8	41	37	21	32					
KY12 9	12	9	8	11					

Table 2

Location	Route	Number of households
Cairneyhill	T3 1A	1123
Crossford	T3 1B	1090
Gowhill, Kinnedar, Saline, Steelend	T3 5B	600
Townhill and Wellwood	T4 3B	1033
Baldridgeburn and Beveridgewell	T4 4B	1268
Headwell	T4 5B	833

3.0 Results

3.1 AHP Potential Capture

All of the results unless stated otherwise are from those households who are currently using AHP products at home. The AHP usage in Dunfermline and the number of projected households that could be involved in the trial based on the survey results and applying this using the Scottish Census 2001 figures are outlined:

- The total number of households eligible to receive the service within the Dunfermline trial area is 5,919;
- 10% of those households currently used AHP products; therefore the projected number of households who could potentially participate in the trial was 592 households;
- Of those potential households 60% indicated they would be willing to use the service which means that 355 households could potentially opt in to the service in Dunfermline; and
- 46,150 red recycling sacks would therefore be required for the 6 month trial period in Dunfermline if each household uses 130 sacks (5 per week).

This represents the upper-estimate for the number of households who would opt-in to this AHP-recycling service. This is the figure which was provided to the Local Authority for planning the infrastructure requirements.

- Of the 10% AHP users in Dunfermline; 80% were nappy users and 20% were incontinence product users;
- All of the nappy users used disposable nappies, and 65% of these indicated they would be willing to use the service. This indicated that a total of 308 nappy using households would potentially opt-in to the service;
- 40% of the Incontinence Product users indicated they would be willing to use the service; indicating that a total of 47 incontinence product using households would potentially opt in to the service. This equates to the 355 potential households that could opt in to the service; and
- Of the 10% AHP users in Dunfermline 72% also used Female Hygiene Products; and of those 72% were willing to use the service to recycle these products; equating to 307 households.

3.1.1 Disposable Nappy Capture

The average number of disposable nappies used per household per day was 5. If all 308 households who indicated they would be willing to use the service opted in; this would equate to 1,525 nappies per day; 10,675 per week and 277,550 disposable nappies for the 6 month trial period.

Some households stated they also used and disposed of nappy sacks and wet wipes on a daily basis in addition to disposable nappies as displayed in Figure 1.

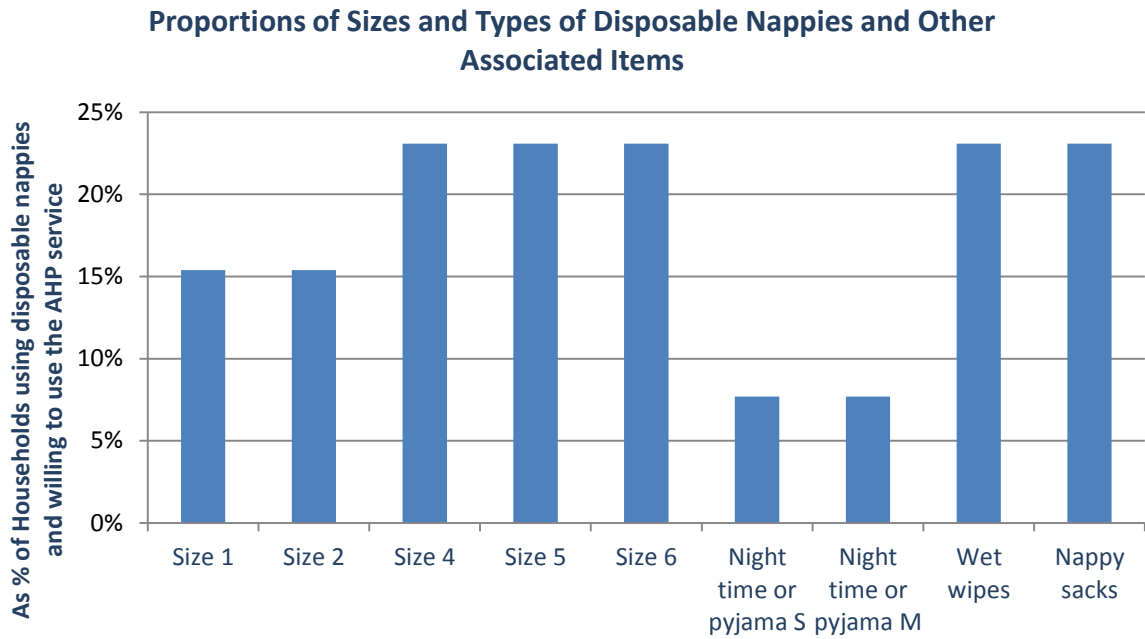


Figure 1
Sizes and Types of Disposable Nappies and Other Items Disposed of by the AHP Users Willing to Use the Service

3.1.2 Incontinence Product Capture

The average number of incontinence products used per household per day was 4. If all 47 households who indicated they would be willing to use the service opted in; this would equate to 188 incontinence products per day, 1316 per week and 34,216 for the 6 month trial period.

As well as Incontinence Pads, Pouches and Pants other items such as connecting tubes and Stoma bags were also disposed of.

3.1.3 Female Hygiene Product Capture

The average number of female hygiene products used per household was not recorded as part of the survey. The main types of female hygiene products used by the AHP Users willing to take part in the trial are displayed in Figure 2.

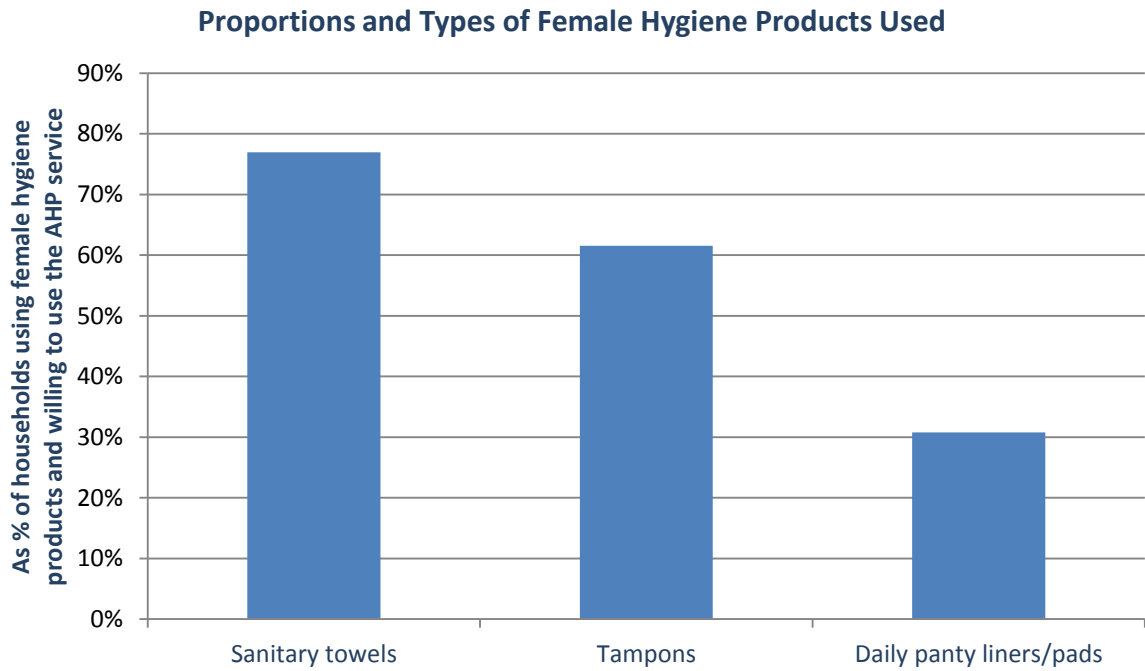


Figure 2
Proportions and Types of Female Hygiene Products Used by AHP Users willing to use the AHP Service

3.2 Acceptability of Proposed Service

56% of current AHP users indicated they would find the service either acceptable or very acceptable as shown in Figure 3. 36% of respondents answered that the service would be less than acceptable with a further 8% undecided.

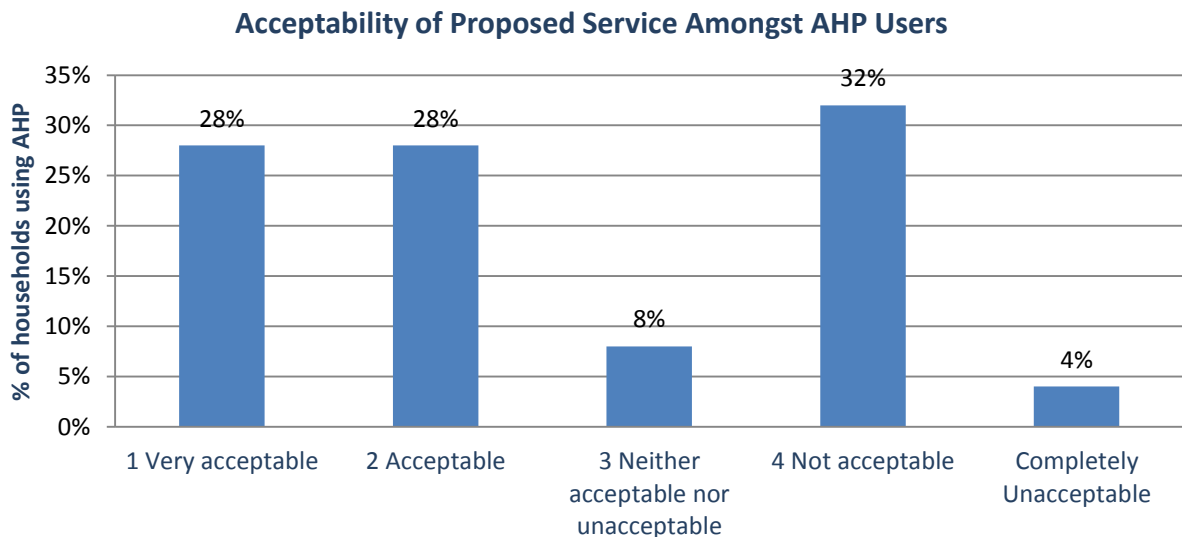


Figure 3
Acceptability of Proposed Service among AHP Users in Dunfermline

3.3 Willingness to Use the Service

60% of households indicated they were willing to use the service, 36% were not willing and 4% were undecided. The reasons given for not willing to use the service were mostly issues surrounding the practicality of transporting the waste to the recycling centre, and storing the products within the home, a smaller number of people highlighted smell and hygiene as issues; and others were worried about the sacks being torn or ripped by children.

3.4 Benefits of Using the Service

The key benefits of this new service identified by householders are presented in Figure 4. The main response given was that it would reduce waste in the normal bin, and provide additional capacity.

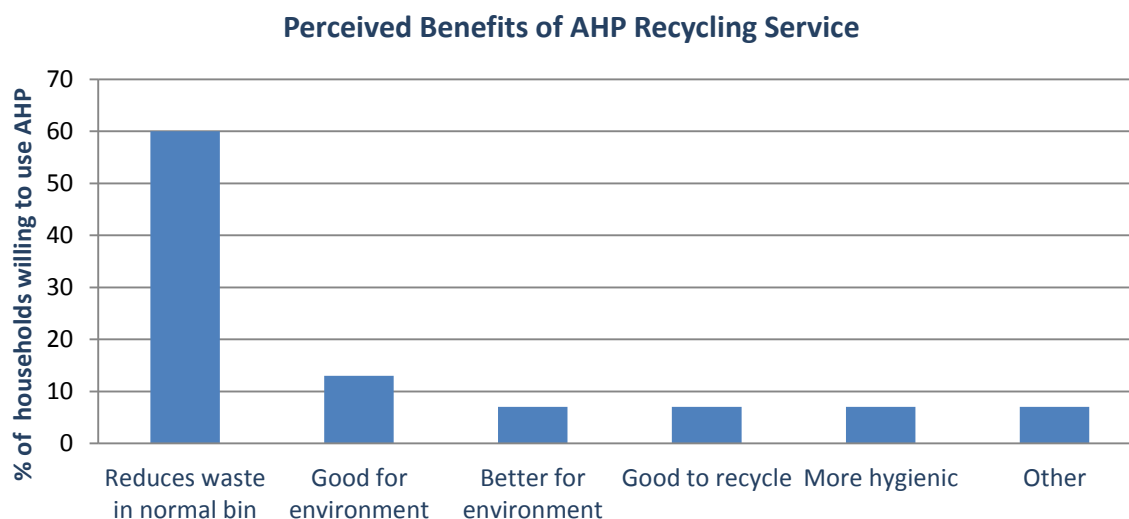


Figure 4

Perceived Benefits of AHP Recycling Service among the AHP Users Willing to Use the Service

3.5 Perceived Concerns

40% of the households willing to use the service raised some concerns; the main concern was the transportation of waste to the Recycling Centre (50%); other concerns included the problem of storing used products, and whether there would be any other Recycling Centres which would accept this type of waste.

3.6 Communication and Information Requirements

Households were asked a series of questions to identify what the most suitable type and form of communications should be to encourage them to use this new recycling service.

3.6.1 Information Requirements

Approximately 50% of households suggested types of information that would help them to effectively recycle their AHP products; as detailed in Figure 5.

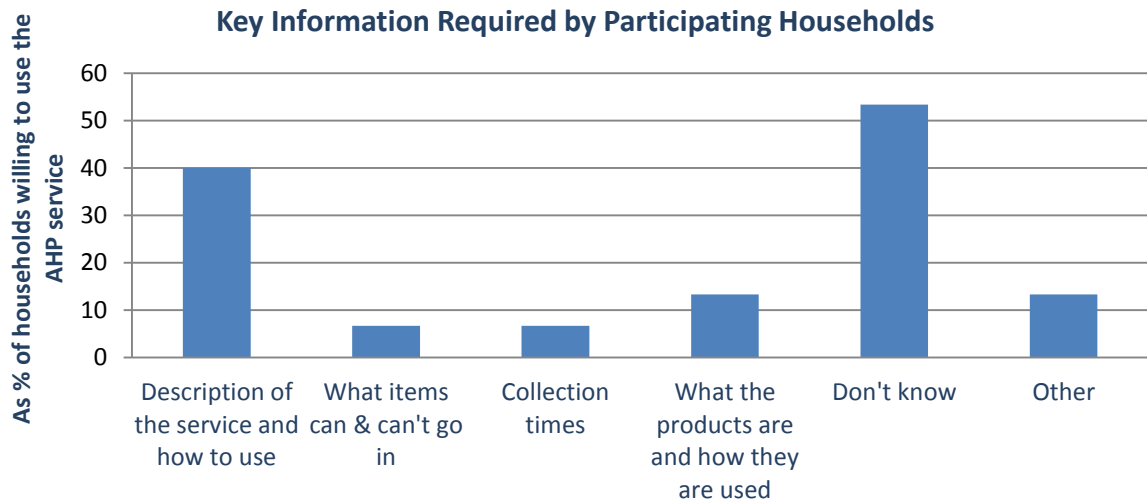


Figure 5

Key Information from Households Using AHP and Willing to Use the Service

Other comments included that people should be kept informed of how the service was performing; the cost of the service to the individual and to the council. The collection times in this case refers to the opening times of the Recycling Centre.

3.6.2 Key Messages

When asked what the key messages should be to encourage the public to participate in this new AHP-recycling service; households focused on both the environmental and practical benefits as displayed in Figure 6.

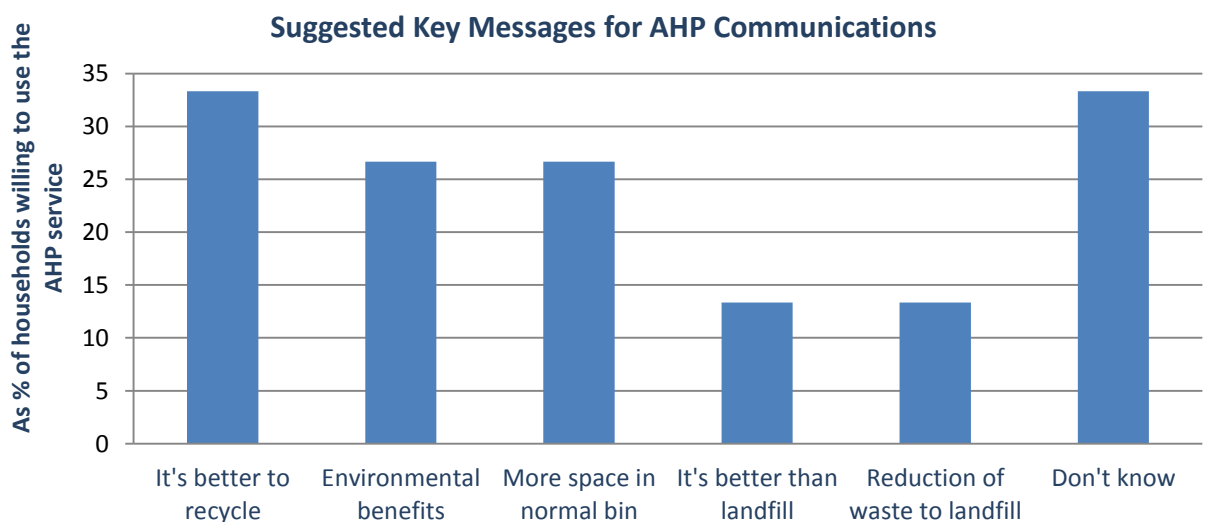


Figure 6

Key Messages Identified from Households Using AHP and Willing to Use the Service

3.6.3 Preferred Communication Formats

Households were asked what forms of communication they would prefer to receive information about the new AHP service; in addition to an introductory leaflet. The majority of people did

not have a preference (67%). Of those who did suggest other methods; 60% stated website updates and 20% also equally suggested via e-mail and letter.

3.6.4 Community Engagement Opportunities

When asked to identify other community groups, organisations or opportunities for wider community engagement for the AHP-recycling schemes, 54% of people did not respond. The most common suggestions identified by the remaining households were Mother and Toddler Groups (57%), Community Centres (43%); Churches (29%) and Nurseries (14%).

3.7 Further Comments and Opinions for the AHP Trials

All householders were asked if they had any further comments they would like to make about the proposed AHP trial in Dunfermline. 14% of those provided comment:

- 31% thought it was a good idea/worthwhile;
- 23% stated they would require more drop off points for the AHP products;
- 23% highlighted transport issues; and
- 6% stated they would prefer a secure container.

3.8 Opinion of the AHP Trials among the Non-AHP Users

Households who were not currently using AHP were asked to give their opinions on the overall acceptability of the scheme as well as the perceived concerns and benefits. The overall acceptability was lower at 42% compared with 56% of those using AHP.

The key concerns identified by the Non-AHP Users were similar to the AHP users with the practicality of transporting the waste to the Recycling Centre and the issue of storing the products being the two key concerns.

The benefits of recycling AHP identified by both the AHP and Non-AHP users again were similar. The primary benefit recognised by both related to the environmental benefits. However the benefit of a reduction in waste going to the residual bin was more commonly recalled by the AHP Users.

Appendix 24 - Fife Council Community Engagement Record

Community Engagement Record				No. Left	
Date	Area	Type	Leaflets (Quantity)	Posters (Quantity)	Address
31/07/2012	Cairneyhill	Scot-Mid	3	1	Main Street
31/07/2012	Cairneyhill	Hair Salon	1	1	Main Street
31/07/2012	Cairneyhill	Spar	2	1	Main Street
31/07/2012	Cairneyhill	Petrol Station	2	0	Main Street
31/07/2012	Cairneyhill	Primary School	0	0	Northbank
31/07/2012	Cairneyhill	Episcopalian Church	1	1	Main Street
31/07/2012	Crossford	Primary School	2	1	Main Street
31/07/2012	Crossford	Post Office	1	1	Main Street
31/07/2012	Crossford	Convenience Store	2	1	Main Street
31/07/2012	Saline	Convenience Store	1	1	Main Street
31/07/2012	Saline	Post Office	2	1	Main Street
31/07/2012	Saline	Church of Scotland	2	1	Oakley Road
31/07/2012	Wellwood	Convenience Store	2	1	Burt Street
31/07/2012	Wellwood	Primary School	0	0	Burt Street
01/08/2012	Headwell	Spar	2	1	Townhill Road
01/08/2012	Headwell	Cost Saver	2	1	Townhill Road
01/08/2012	Headwell	Church of Nazarene	2	1	Headwell Avenue
01/08/2012	Beveridge	Car Accessories Shop	2	1	Scott Street
01/08/2012	Baldridgeburn	Printers Shop	1	1	Chalmers Street
01/08/2012	Baldridgeburn	Bridal Shop	2	1	Chalmers Street
01/08/2012	Baldridgeburn	Computer Shop	1	1	Chalmers Street
01/08/2012	Baldridgeburn	Indian Shop	1	0	Pittencrieff Street
01/08/2012	Baldridgeburn	El Tavern Restaurant	1	0	Pittencrieff Street
01/08/2012	Baldridgeburn	Primary School	0	0	Maitland Street
01/08/2012	Baldridgeburn	Convenience Store	2	1	Cameron Street
31/08/2012	Cairneyhill	Primary School	5	2	Northbank
31/08/2012	Cairneyhill	Scout Hall - Mother & Toddlers Group	5	2	Northbank
31/08/2012	Crossford	Primary School	5	2	Dean Drive
31/08/2012	Crossford	Playgroup - Community Centre	5	2	Dean Drive
31/08/2012	Baldridgeburn	Primary School	5	1	Sth Dewar Street
31/08/2012	Baldridgeburn	Nursery School	5	1	Sth Dewar Street
31/08/2012	Beveridge	Primary/Nursery School	5	1	Baldridgeburn
31/08/2012	Wellwood	Primary School	5	1	Main Street
31/08/2012	Townhill	Library/Community Centre	5	1	Main Street
31/08/2012	Townhill	Post Office	3	0	Main Street
31/08/2012	Townhill	Primary School	5	1	Chisholm Street

90

33

Appendix 25 - Fife Council AHP Post-Trial Survey

Fife Council - Fife

AHP Post Trial Survey

May 2013

Report Submitted to ZWS

3.0 Fife Results

3.1 Information on the AHP Trial Scheme in Fife

Households who opted in to the Absorbent Hygiene Product trial scheme in Fife received an initial supply of five red recycling sacks which were posted to householders. These sacks when nearly full were taken to the Household Waste Recycling Centre at Well wood past Queen Anne High School. Attendants at the Recycling Centre signposted the public to the AHP containers. Householders were then able to collect further recycling sacks (up to 5 per visit) from the attendant.

The actual number of surveys carried out in Fife was 56, 46 of the householders had opted in and 10 had not. This number allowed for a statistically robust sample with a confidence of 95% for those households who opted in and those who did not.

The following section refers to findings from the AHP Post Trial Survey.

3.2 Survey Profile

The survey profile for Fife is displayed in Table 1.0.

Table 1.0
Survey Profile

	Number of Households Opted In	Number of Households Who Did Not Opt In
Nappies	33	6
IC	9	3
Both	0	0
None	4*	1
Total	46	10

**Opt ins who were not using AHP can be explained by those households who were no longer using AHP and is explored later in this report.*

In this report the households have been categorised into the following groups

- Those who did not opt in;
- Those who did opt in;
 - Those who opted in but never used the service;
 - Those who opted in but were no longer using the service; and
 - Those who continued to use the service.

3.8 Those Who Had Opted In

The following section refers to all of the households who had chosen to opt in.

3.8.1 Reasons for Opting In

Environmental benefits appear to have been very important in householders' decisions to opt in, as detailed in Figure 1.0.

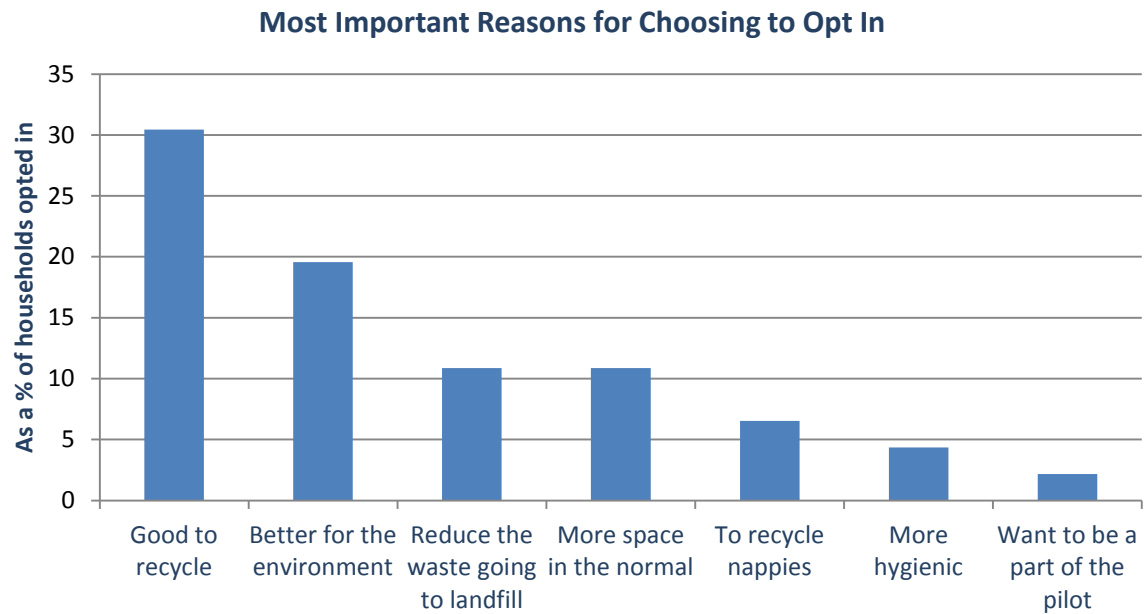


Figure 1.0
Reasons for Choosing to Opt In to the AHP Trial

3.8.2 To what extent the Service Met Respondents' Expectations

Overall the service met householders' expectations. Most respondents who opted in stated that the service was 'Better than expected' (22%) or 'About what [they] expected' (52%). No one reported that the service was worse than they expected, as displayed in Figure 1.1.

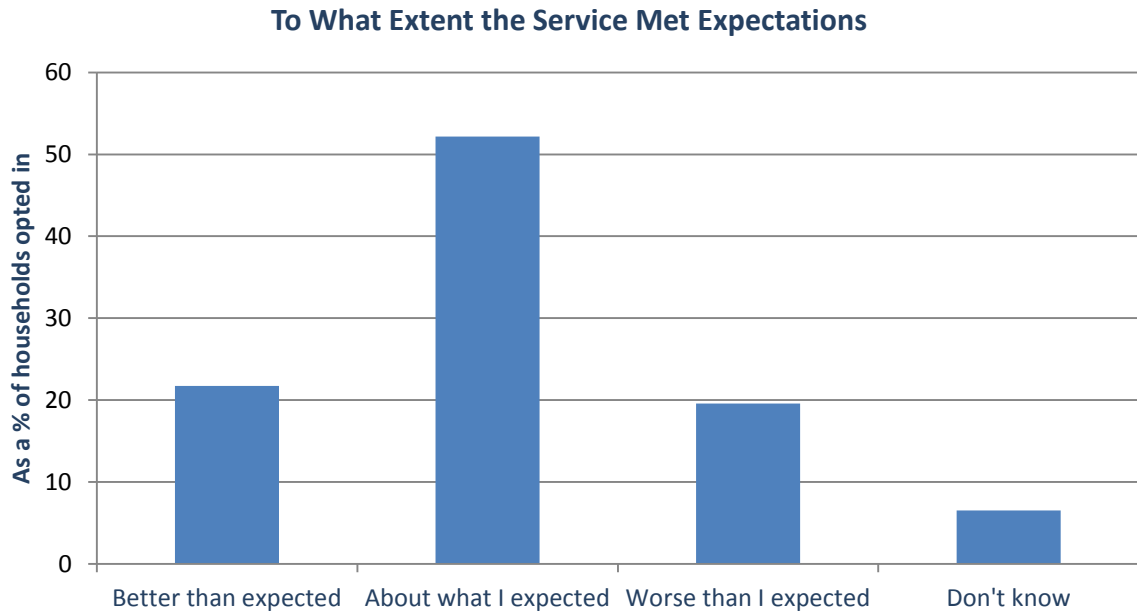


Figure 1.1

To What Extent the Service Met Expectations

3.8.3 Methods of Opting In

By far the most common way people opted in was by phone (59%), as detailed in Figure 1.2.

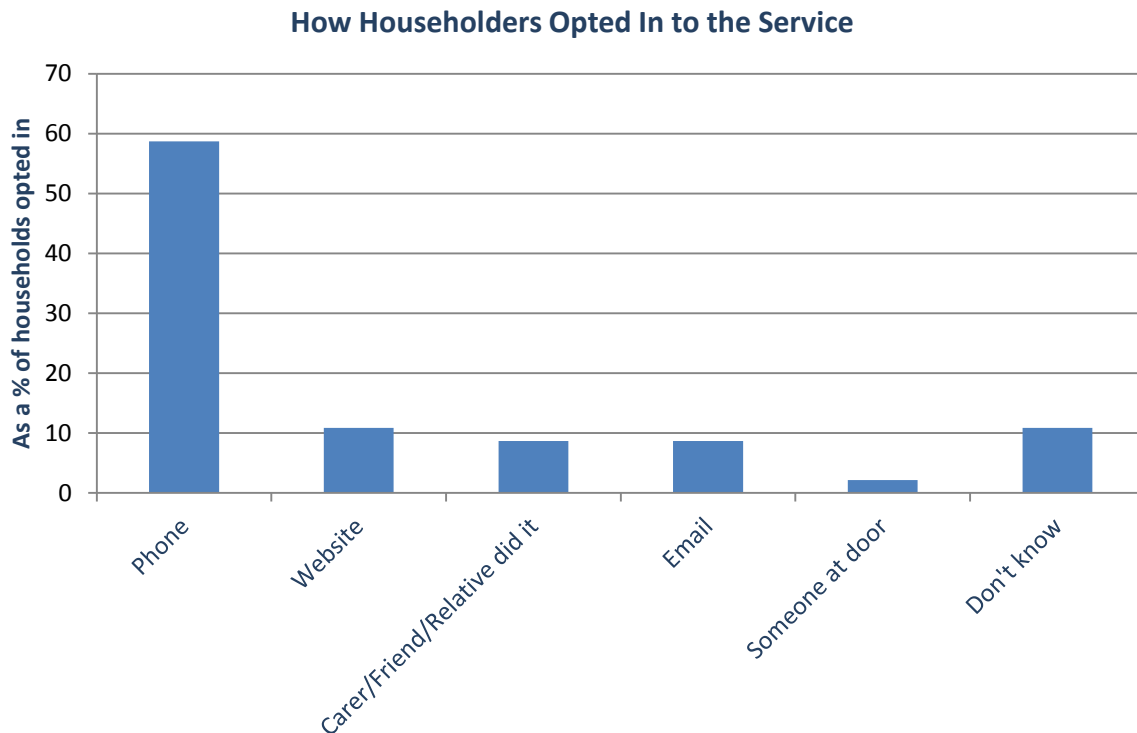


Figure 1.2

How Householders Opted In to the Service

3.8.4 Ease of Opting In

72% of householders in Fife found the opting in process very easy or easy, as displayed in Figure 1.3.

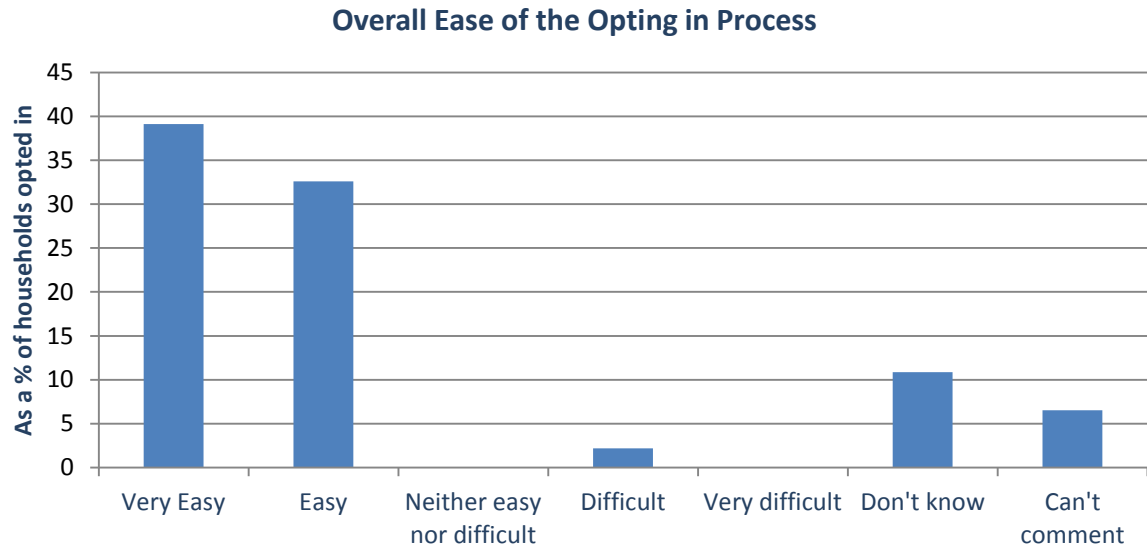


Figure 1.3
Overall Ease of the Opting in Process

When asked what would have made the process easier responses were:

- If there was less of a delay (1 householder);
- Opted in automatically (1 householder); and
- If the online form had worked (1 householder).

3.8.5 How Householders got Information on How to Use the Service

Most people got information on how to use the service from the leaflet (78%), as displayed in Figure 1.4.

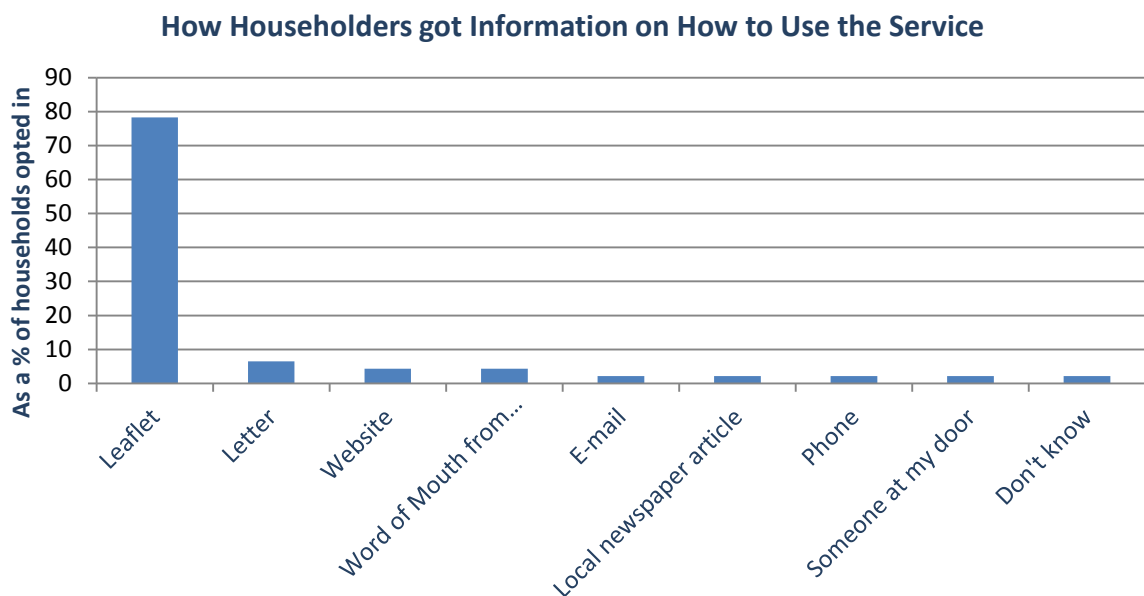


Figure 1.4

How Householders got Information on How to Use the Service

3.8.6 Whether Users Would Recommend the Service to Family and Friends

85% of the householders who opted in said that they would recommend the service to family and friends, if it was available where they live.

3.8.7 Overall Summary for Those Who Opted In

- Both environmental benefits appear to have been very important in householders' decisions to opt in;
- Most respondents who opted in stated that the service was 'Better than expected' (22%) or 'About what [they] expected' (52%).
- By far the most common way people opted in was by phone (59%);
- Most people found the opting in process very easy or easy (72%);
- Most people got information on how to use the service from the leaflet (78%); and
- 85% of householders who opted in said that they would recommend the service to family and friends.

3.8.8 Service Use of Those Who Opted In

In the following section the households which opted in have been broken down into the following groups:

- Those who opted in but never used the service (2 households; 4%);
- Those who opted in but were no longer using the service (24%); and
- Those who continued to use the service until the time of the post trial survey (72%).

3.8.9 Those Who Opted In but Never Used the Service

There were only 2 households in Fife who opted into the service but never used it. Both said they would use the service if there was a kerbside collection (unprompted).

3.8.10 Those Who Opted in but were No Longer Using the Service

Of the households which opted in 11 (24%) were no longer using the service. Around 11% dropped out because they no longer needed the service, this is comparable to other trial areas. Unlike other schemes, many reasons provided for no longer using the service indicated that householders found taking the sacks to the HWRC difficult or inconvenient.

Reasons provided for not using it anymore were:

- No longer need the service (5 households, 11%).
- Too much effort (4 householders, 9%);
- No time (1 householder, 2%);
- The recycling service is too far (1 householder, 2%);
- Nowhere to store the bags (1 householder; 2%);
- No transport (1 householder, 2%); and
- Bad smell (1 householder, 2%).

When those no longer using the service were asked what would encourage them to use the service in the future, the responses given were:

- If I need the service again (6 householders; 13% (4 had used nappies, 1 IC, 1 both));
- If there was a kerbside collection (4 householders, 9%);
- If the service was improved (2 householders, 4%); and
- Nothing in particular (1 householder, 2%).

3.8.11 Those who Continued to Use the Service

The following section refers to the households which opted in and were still using the service at the time of the post-survey, 72%.

3.8.11.1 AHP Sacks Used per Week

The number of AHP sacks used per week by householders is displayed in Figure 1.5.

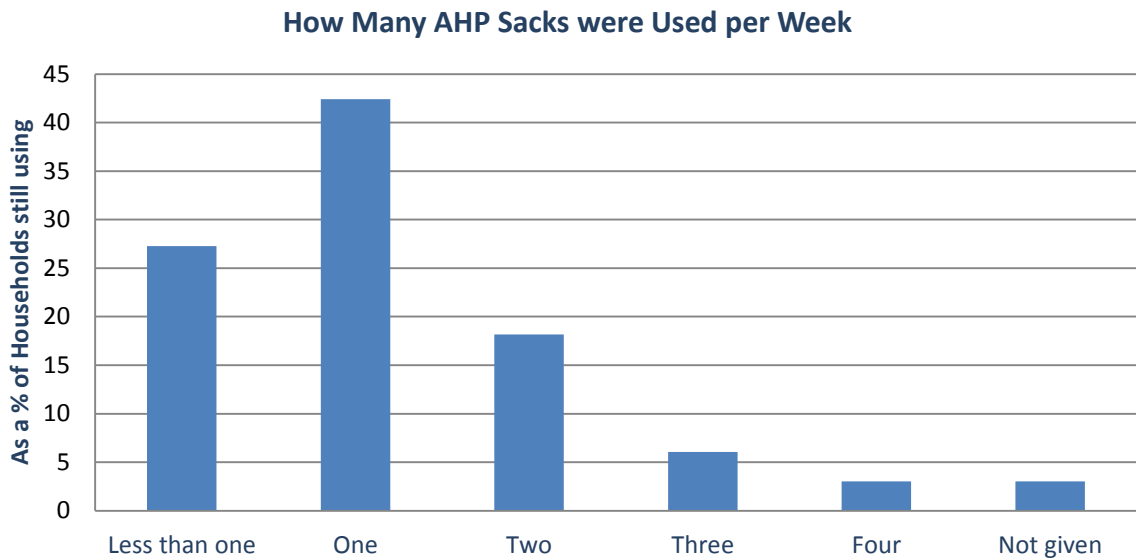


Figure 1.5

Number of AHP sacks used per week

70% used one or less than one AHP sack per week, 30% used between two and four per week.

3.8.11.2 AHP Sack Fill Level against Frequency of Taking to HWRC

The frequency that householders took sacks to the HWRC varied from multiple times per week and less than once a month, as displayed in Figure 1.6.

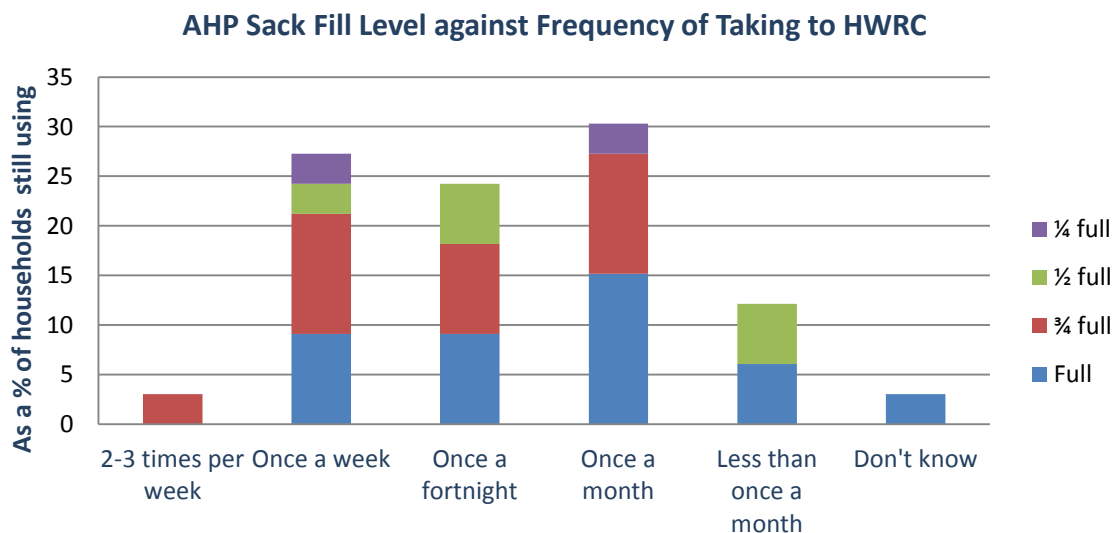


Figure 1.6

AHP Sack Fill Level against Frequency of Taking to HWRC

24% of the users who took their sacks to the HWRC weekly or more often said they were 3/4 full to full when they did so. 6% took their sacks every week when their sack was 1/2 full or less.

3.8.11.3 AHP Sack Usage

The vast majority of householders said that the AHP sacks were used for all of their AHP waste at home, this suggests that once people started to use the AHP sacks the majority of AHP waste generated in the household was recycled. Only 9% of householders reported using their normal bin for AHP waste sometimes, reasons provided for doing so were:

- If I forget (1 householder);
- If I'm in a rush (1 householder) and;
- If the AHP sack is full (1 householder).

3.8.11.4 Suitability of the AHP Sacks

97% said that the sacks were suitable for collecting their AHP waste. When asked what they liked about the sacks the responses were:

- They are very strong (48%);
- Nothing in particular (33%);
- It keeps the waste out of the other bin (9%);
- Colour (6%);
- Convenient to use (6%);
- Hygienic (6%);
- Keep the smell in (3%) and;
- Size (3%).

3.8.11.5 Suggested Improvements to the AHP Sacks

67% householders had no suggestion as to how to improve the AHP sacks. The main improvement was for the sacks to have ties:

- Ties for sacks (18%);
- Smaller sacks (12%);
- Different colour (3%); and
- Separate wheelie bin (3%).

3.8.11.6 Sack Storage

Many householders kept their AHP sacks outside:

- Outside (42%); and
- In the shed/garage/outhouse (33%).

Others stored their sacks in the following locations;

- In the bathroom (9%);
- In the kitchen (6%);
- In a bedroom (3%);
- Utility room (3%); and
- Changing room (3%).

3.8.11.7 AHP Sack Summary

Key points:

- 70% used one or less than one AHP sack per week;
- The vast majority of householders (81%) said that they used the sacks for all of their AHP waste when they were at home;
- 97% said that the sacks were suitable for collecting their AHP waste; and
- 18% of householders suggested ties for sacks, 12% suggested smaller sacks (12%).

3.8.12 Benefits of Using the Service and Reasons for Opting In

Benefits identified with using the service were similar to reasons why householders had chosen to opt in. For those still using the service the primary benefit mentioned was its good to recycle (48%), this was also the most common reason provided for initially opting in (48%), as displayed in Figure 1.8.

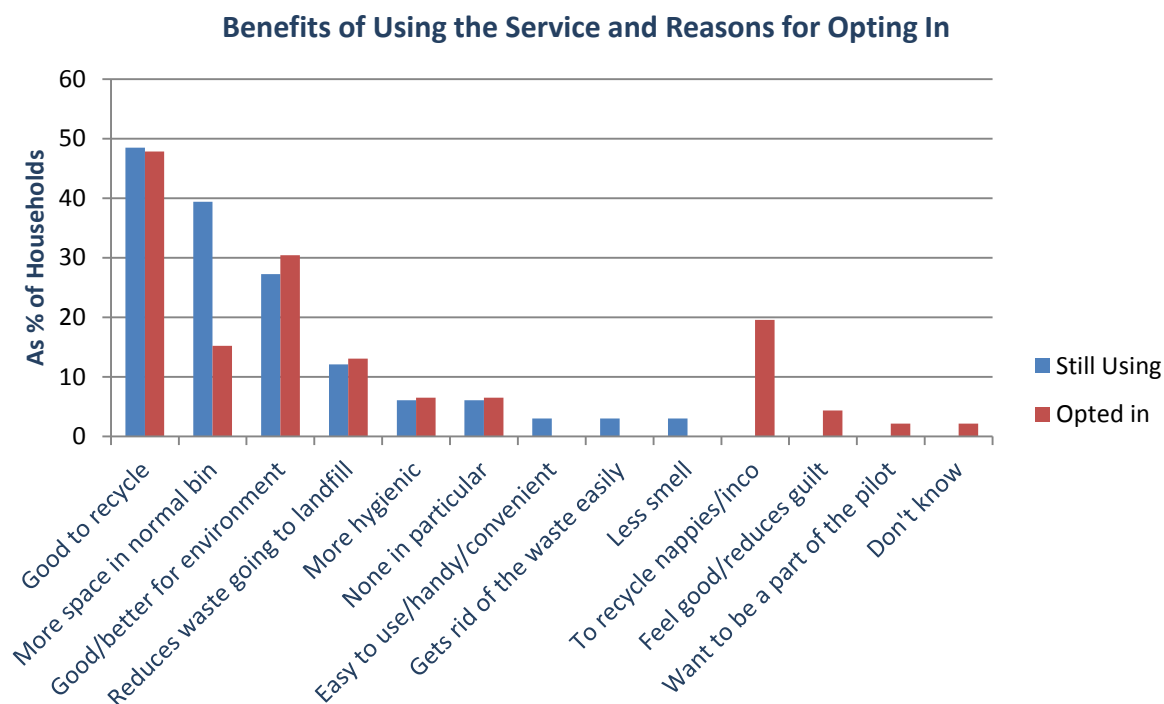


Figure 1.8

Benefits of Using the Service and Reasons for Opting In

39% of those still using the service mentioned more space in normal bin as a benefit of using the service; this was only mentioned as a reason for initially opting in by 15% of respondents.

The environmental benefits ‘Good to recycle’, ‘Good/better for the environment’ and ‘Reduces waste going to landfill’ were mentioned at least once by 68% of householders²⁸. This suggests that the recycling aspect of the service was important to the public and this appears to have been more important to those in Fife than having more space in their normal bin.

²⁸ In Figure 1.8 householders were allowed to provide multiple responses.

3.8.13 Ease of Use of the Service

81% of those still using the service rated it as easy or very easy to use, (5 found the service difficult or very difficult to use, as displayed in Figure 1.9.

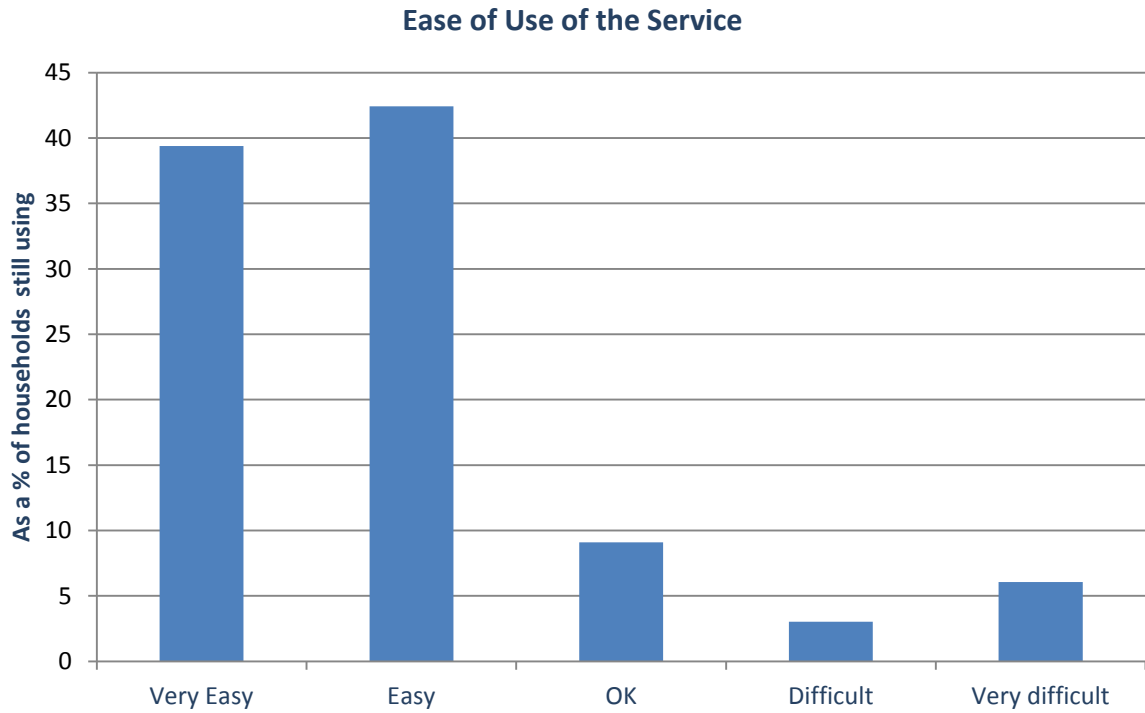


Figure 1.9

Ease of Use of the Service

3.8.14 Service Satisfaction

Satisfaction with the service was high, with 85% of householders being very satisfied or satisfied with this, 6% were either dissatisfied or very dissatisfied, as displayed in Figure 1.10.

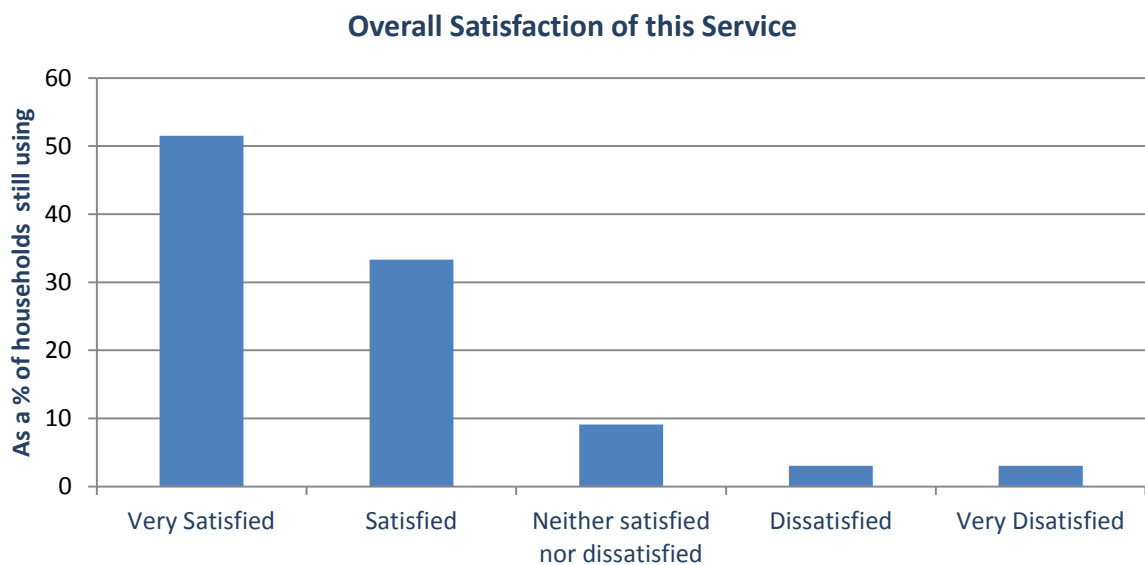


Figure 1.10

Overall Satisfaction with the Service

3.8.15 Problems when Using the Service

The majority of householders (85%) did not report any problems when using the service. The problems experienced by the remaining 15% were:

- It's difficult to get to the Recycling Centre (9%);
- Smell (6%);
- Didn't receive bags (3%); and
- Hygiene (3%).

3.8.16 Whether Users would Opt In to the Service if it was Offered on a Permanent Basis

85% of those still using the service said that they would opt into the service if it was offered on a permanent basis, 15% would not. This demonstrates the popularity of this trial, however 85% is lower than the proportion who would opt in to all other kerbside services.

3.8.17 Summary for Those Still Using the Service

- Householders appear to be motivated to use the service because of recycling and less so by having more space in their normal bin;
- 81% of those still using the service rated it as easy or very easy to use;
- Satisfaction with the service was high, with 85% of householders being very satisfied or satisfied;
- The majority of householders (85%) did not report any problems when using the service; and
- 85% of those still using the service said that they would opt into the service if it was offered on a permanent basis.

3.9 Those who had Not Opted In

The following section refers to those householders who did not opt in to the trial service. NB: All households had been using AHP at the time of the pre-survey.

3.9.1 Reasons for Not Opting in

The following reasons were given for not opting into the service:

- I didn't know about the service (3 householders);
- Didn't have enough information (2 householders);
- Don't want the service (2 householders);
- Didn't hear back (1 householder);
- Don't have a car (1 householder);
- Forgot to opt in (1 householder);
- Hygiene concerns (1 householder);
- Only need the service when family is visiting (1 householder);
- Problem of storing used products (1 householder); and
- Smell (1 householder).

3.9.2 Encouragements to Use the Service

Those who did not opt in were asked what would have encouraged them to opt in and the responses were:

- If I'd known (3 householders);
- Nothing (2 householders);
- Free pick up service (1 householder);
- If I had a car (1 householder);
- If I had more information (1 householder);
- If I had more waste (1 householder);m and
- Suitable container (1 householder).

3.10 Communications

Fife Council sent a leaflet to every property in the trial area to introduce the New AHP Recycling Service. Other activities included:

- Leaflets were distributed within the area in order to raise local awareness and encourage uptake (distributed to all households);
- Posters were distributed amongst local businesses, health centres, pharmacies, nurseries and community centres;
- Discussions took place with shop-owners, librarians, pharmacists and health workers to ensure they were aware of the recycling service and understood its operation;
- Postcards were delivered to each household to reinforce how to use the service (for those who opted in).

The following section refers to all of the households which opted in to use the service.

3.10.1 Awareness of the AHP Trial

The leaflet was most effective at raising awareness of the AHP trial, 62% of householders became aware of the service from this, and other responses are displayed in Figure 1.11.

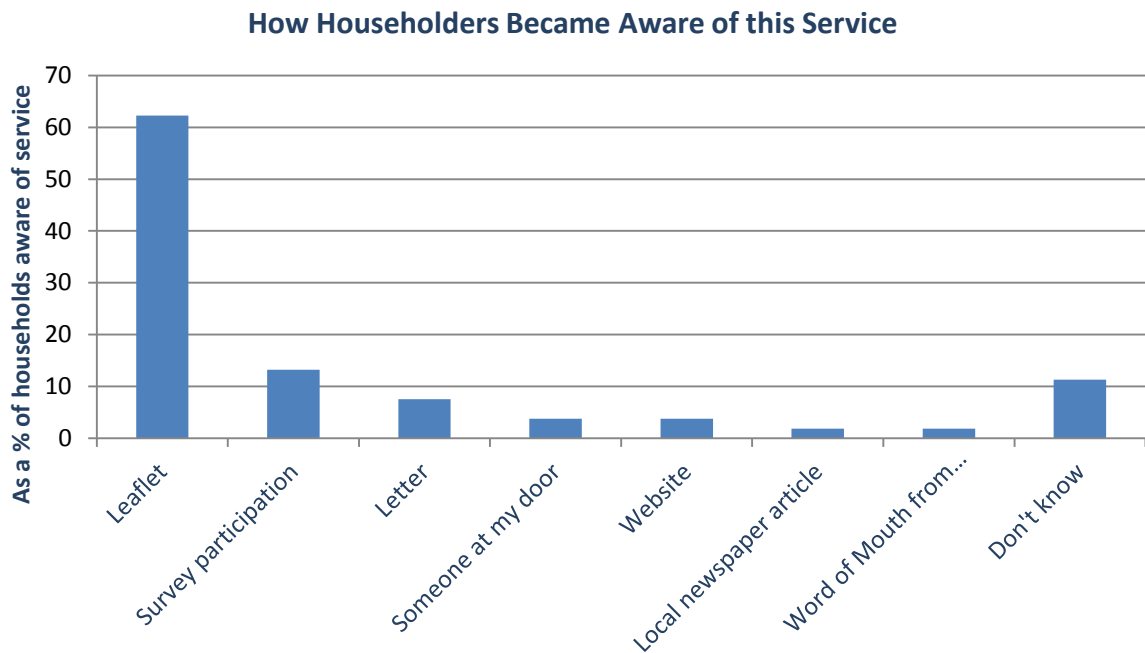


Figure 1.11
How Householders Became Aware of this Service

3.10.2 Communication Materials

3.10.2.1 Leaflet

66% of the households said they had received a leaflet through the door about the trial. When prompted with the leaflet this decreased to 75%. Of these 88% agreed with the statement “The leaflet told me everything I need to know” and 12% householders didn’t know or could not remember.

26% householders who received the leaflet kept it for future reference, 50% did not and a further 24% did not know or could not remember.

3.10.2.2 Poster

9% of householders said they had seen a poster about AHP Recycling. When prompted with the poster this remained the same. The posters were seen at the following locations:

- Community Centre (2% of all households); and
- On a lorry (2%).

5% of householders had seen a poster but could not remember where.

3.10.2.3 Presentation

18% of households said that someone had spoken to them about the new service. This took place by the following methods:

- Someone came to the door (16%); and
- Word of Mouth from friend/family/neighbour/colleague (2%).

3.10.2.4 Bin Decal

17% of households who opted in said they had seen a sticker on the AHP container at the HWRC, 75% of them found the sticker useful. No one said that they were unhappy for this to be displayed publically.

3.10.2.5 Postcard

14% of all households said they had received a postcard about the trial. When prompted with the postcard this percentage increased to 20%. All of those who received the postcard agreed with the statement “The postcard told me everything I need to know”.

3.10.3 Recycling Nappies/Incontinence Products is Good for the Environment

91% of householders agreed or strongly agreed with the statement “Recycling nappies/Incontinence Products is Good for the Environment”, as displayed in Figure 1.12.

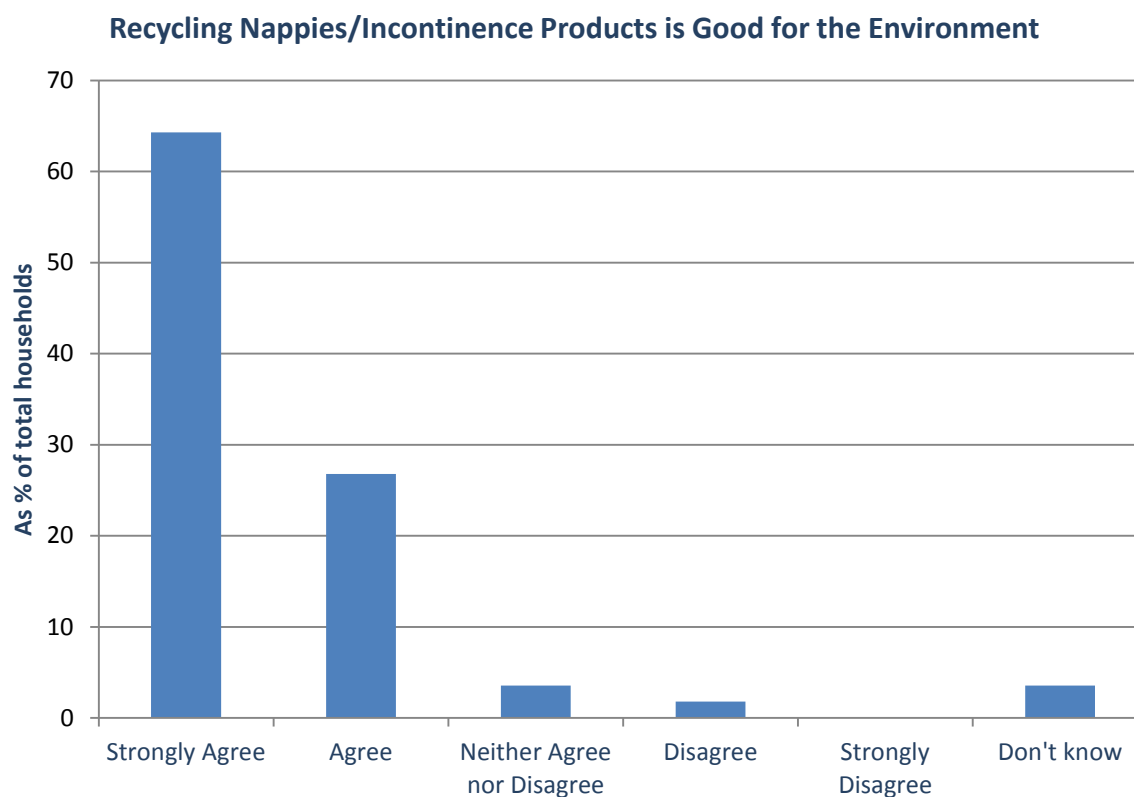


Figure 1.12
Recycling Nappies/Incontinence Products is Good for the Environment

3.10.4 Knowledge of What AHP Products can be Recycled into

Although about 68% of householders who opted in appeared to be motivated by recycling or other environmental benefits, knowledge of what AHP products can be turned into was very poor with only 18% of household providing a correct answer. 68% of householders responded with ‘don’t know’. Recall of correct and incorrect materials is listed below:

- Benches (14%);
- Garden furniture (7%);
- Cardboard (4%);
- Decking (4%);
- Other (14%).

3.10.5 Further Comments and Opinions on the AHP Trials

All householders were asked if they had any further comments they would like to make about the AHP trial in Fife. 68% provided comments:

- 48% mentioned a kerbside collection;
- 41% said it was a good service/idea and/or they hope it continued; and
- 17% mentioned bin provision.