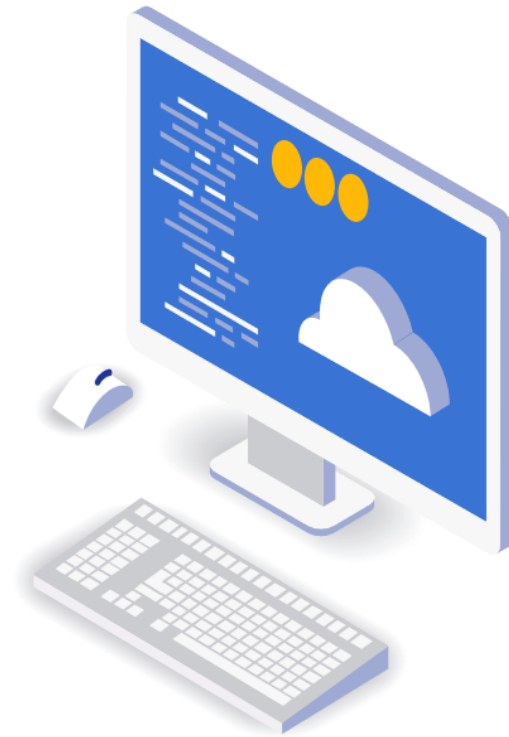


The Digital Depot for Municipal Services

Thomas Moffat – Webaspx
Derek Jones – RCTCBC

APSE Wales Environmental
Advisory Group
22nd May 2019

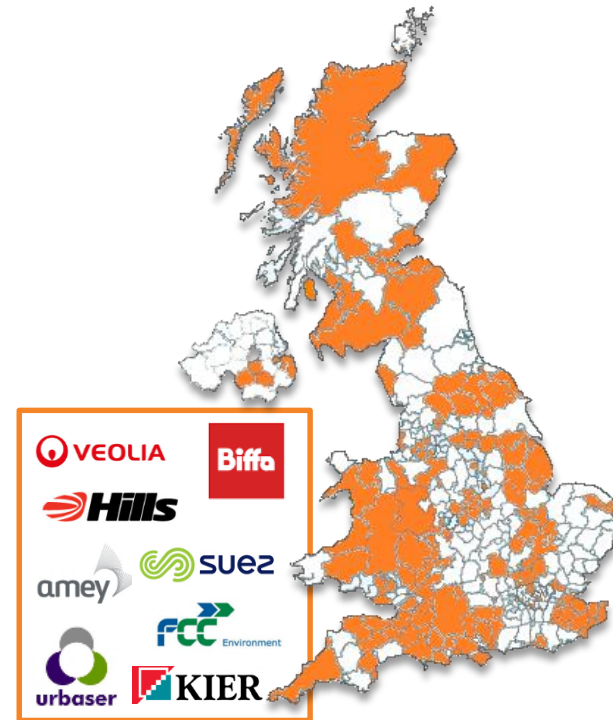


The Digital Depot for Municipal Services

- Who are Webaspx?
- What problems are Council's facing?
- How can a fully integrated "Digital Depot" help?
- How Rhondda Cynon Taf are using Digital Depot to optimise their services and streamline their operations

Who Are We?

- Over 200 local authorities
 - 15 in Wales
- All the leading environmental service companies
- Supporting waste and streets services for 20 million citizens
- No.1 route optimisation company for municipal services



Challenging Times

High Demand, Lower Budgets, Fewer Resources



**As a share of GDP,
local government
spending is already at
the lowest point for 40
years and is projected
to go on falling.**

Challenging Times

High Demand, Lower Budgets, Fewer Resources



An average council can expect 15,000 calls about waste every year.

The front office cost per phone contact for local authorities is estimated at £2.59.

Challenging Times

High Demand, Lower Budgets, Fewer Resources



Returning to collect just 2 missed bins per round is estimated to cost the average council between £150,000 and £300,000 every year.

Challenging Times

High Demand, Lower Budgets, Fewer Resources



37.5% of councils expect to be working with fewer staff in the waste team next year.

Staff spend too long entering data into different systems

Challenging Times

High Demand, Lower Budgets, Fewer Resources



The proportion of councils charging for green waste collection is expect to rise from 54% to 61% in the next 18 months.

What can we do?



82% of local authorities have done or are planning a refuse route optimisation exercise.

83% of local authorities expect digital technologies to enable improvements in service delivery.

Digital Depot– Integrated Optimisation and Operations

End-to-end digital processes that increase efficiency through the full lifecycle of the service



Route
Optimisation



In-Cab &
Mobile



Back Office &
Council Systems

Example Benefits & Savings

- **Less than 0.5%** of bins are now genuinely missed (*Richmondshire*)
- Approx **80% reduction** in missed bins (*Scarborough*)
- **62% decrease** in missed bins - only **77 missed bins per 100,000** (*Halton*)
- More than **50% decrease** in calls coming through to Waste team (*Richmondshire*)
- **15% reduction** in calls to contact centre due to links with online calendars (*Falkirk*)

Key Takeaways

1. We want to add the same level of efficiency at the back-end of the process, as your customer experience platform delivers at the front-end.
2. The back-end of the process is seamlessly connected to the front-end of the process.
3. Processes and systems work across the environmental function. But beware of trying to cover everything else too...
4. The overall solution is achievable and affordable, with a proven return on investment.

THE CHOICE IS CLEAR.



EVERYONE NEEDS TO RECYCLE

Revolutionary Digitalisation

Revolutionise Waste Services
using Digital Depot



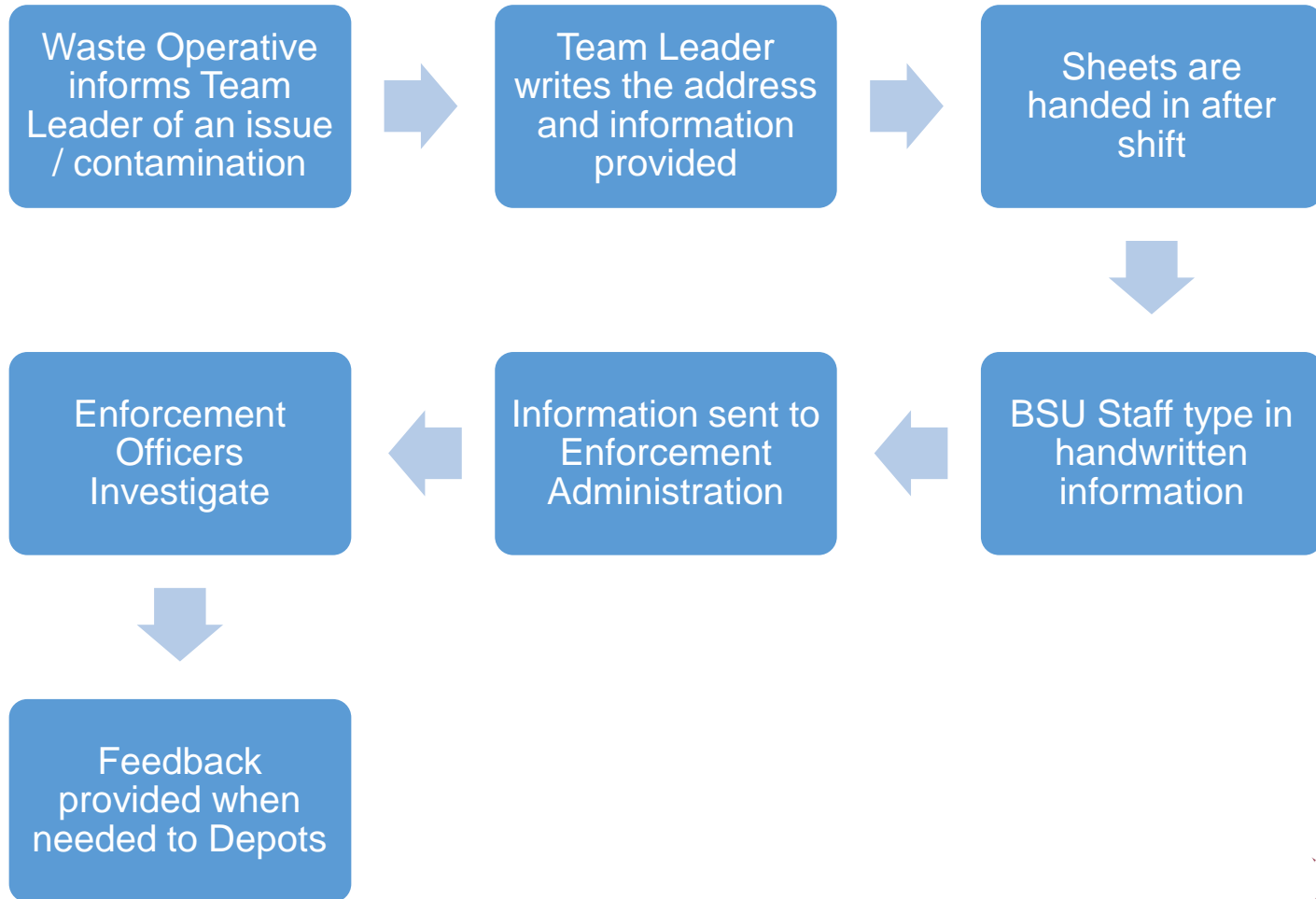
Derek Jones
Logistics Officer



Existing Systems

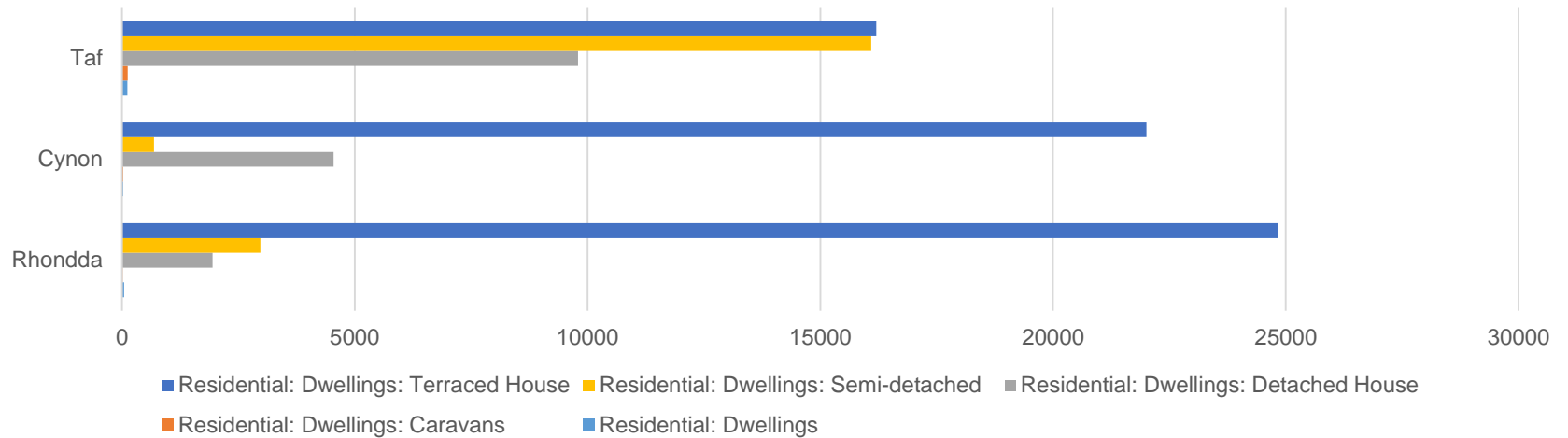
- Paper based PI's
- Paper round sheets / maps
- CRMs paper based and handed to Crews

Existing Process for PI's



Overview of the Borough

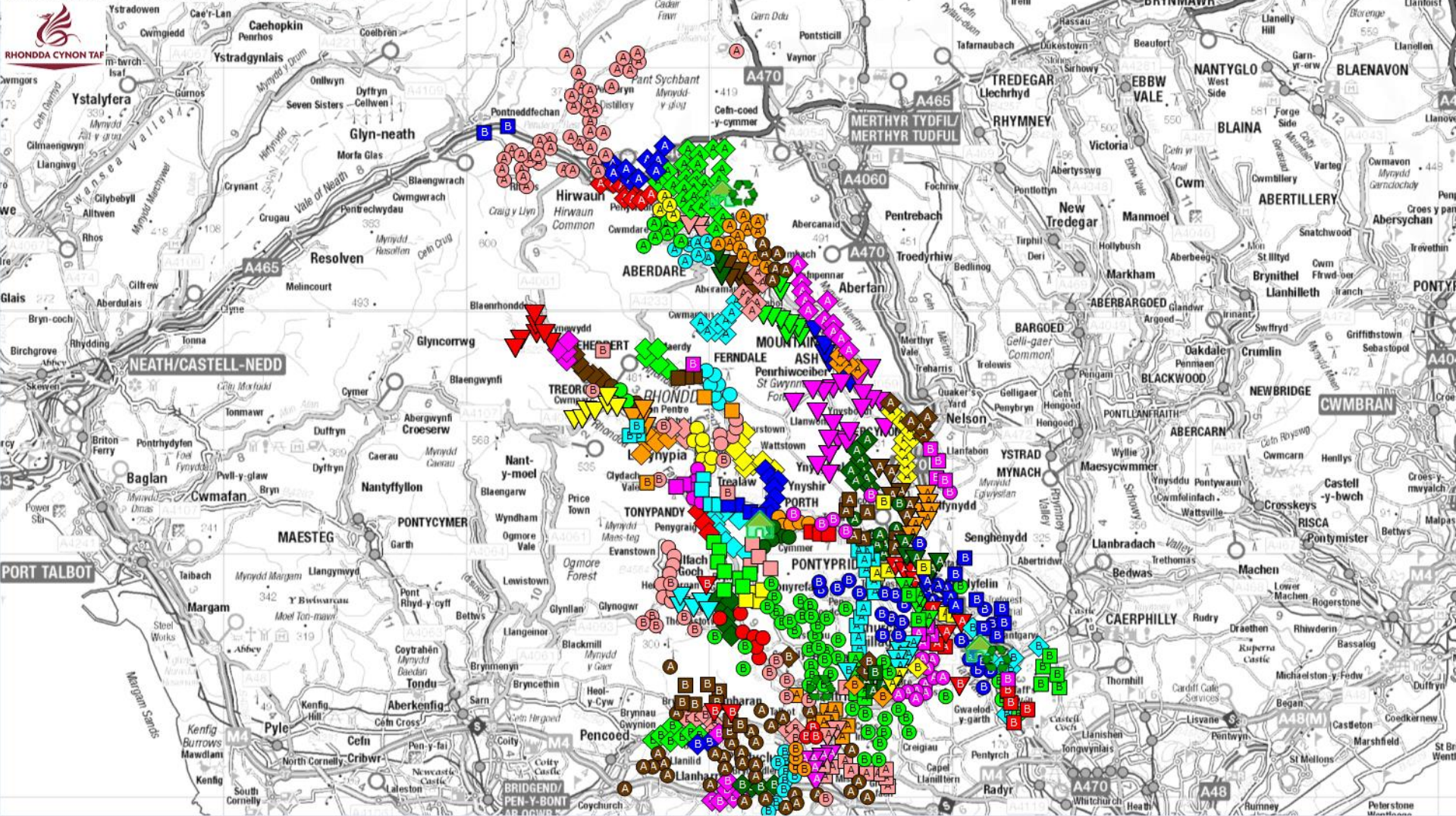
Chart Title



	Residential: Dwellings	Residential: Dwellings: Caravans	Residential: Dwellings: Detached House	Residential: Dwellings: Semi-detached	Residential: Dwellings: Terraced House
Area	RD	RD01	RD02	RD03	RD04
Rhondda	43	10	1947	2970	24823
Cynon	23	22	4545	685	22008
Taf	112	123	9794	16092	16202
Grand Total	178	155	16286	19747	63033

How does it look?

Waste Services, Rhondda Cynon Taf CBC Licence No. 100023458

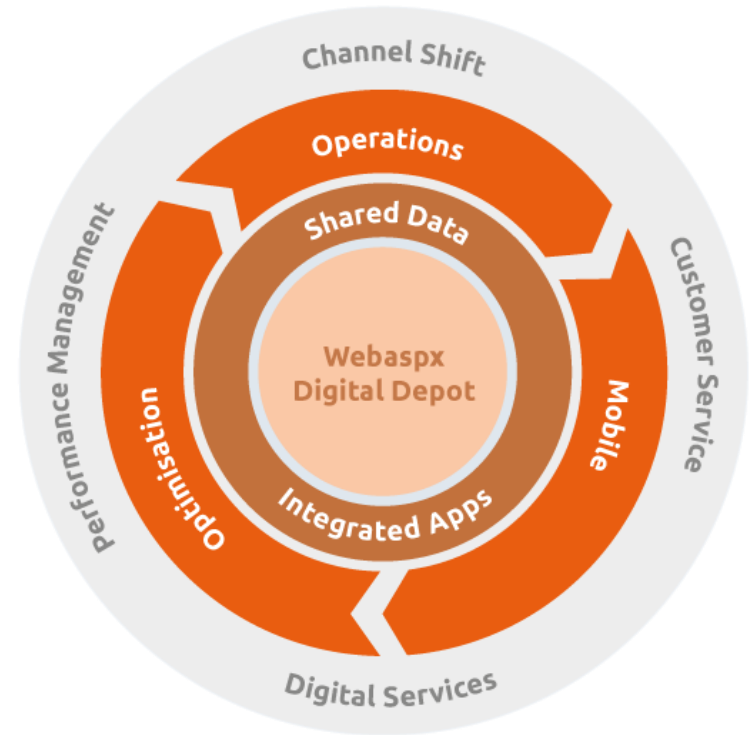


Trial

- 4 InCab Devices installed - 3 Food vehicles in Cynon and 1 Recycling Isolated Properties started February
- 1668+ Issues reported using tablet
- Positive feedback from all crews;
 - Quicker to use
 - Easy to use
 - Better than writing issues
- Other crews are keen to start

Systems Implemented

- Easy Route Pro
- Collections
- InCab
- Workflow





Show Layers

Raster

- Locations
- No Collection
- Hazards
- Rurality
- Roads
- Lines
- Rate
- Yield
- Type
- Routes
- Arrows
- Rep's
- Streets
- Edges
- Driving Instructions
- Boundary
- Polygons/Lines
- GPSTrail

Find ? Clear

You can enter a single word or multiple word/phrases (in quotes) separated by operators &=AND, |=OR, |=NOT

Update

Round (blank=Any)

Order

With Round

6 304 Order

Move same USRN

Sensitivity

Rate % 100

Yield % 100

Speed % 100

Performance

Display All in Table Display Selected

Target Time (hrs) 7.5 Ave Time (Selected)=45.24hrs

Round	Location	Time
30:Rhondda 6 Friday	1059	
31:Cynon 1 Monday	1300	
32:Cynon 2 Monday	1270	
33:Cynon 3 Monday	1199	
34:Cynon 4 Monday	1310	
35:Cynon 1 Tuesday	1448	
36:Cynon 2 Tuesday	1440	
37:Cynon 3 Tuesday	1471	
38:Cynon 4 Tuesday	1413	
39:Cynon 1 Wednesday	1356	
40:Cynon 2 Wednesday	1341	
41:Cynon 3 Wednesday	1404	
42:Cynon 4 Wednesday	1362	
43:Cynon 5 Wednesday	1375	
44:Cynon 1 Thursday	1537	
45:Cynon 2 Thursday	1414	
46:Cynon 3 Thursday	1552	
47:Cynon 4 Thursday	1434	
48:Cynon 5 Thursday	1513	
49:Cynon 1 Friday	1029	

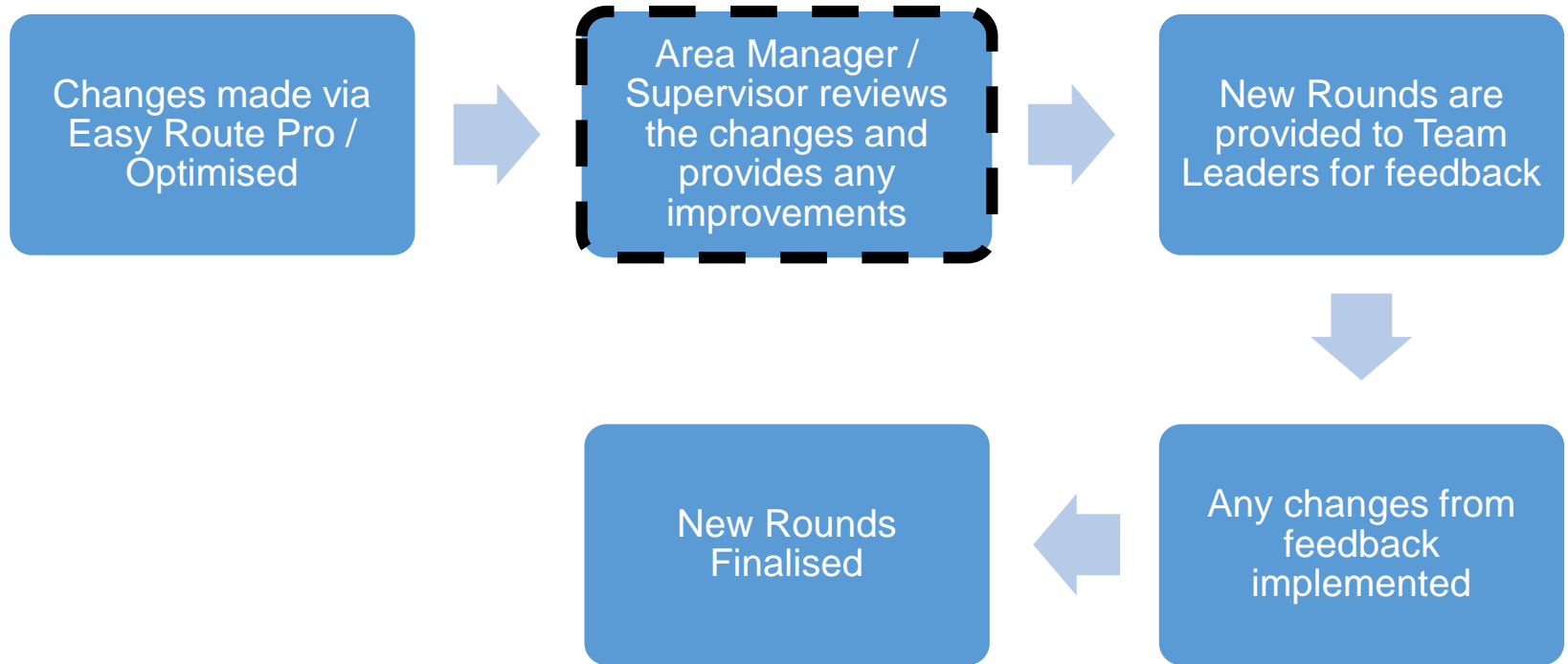


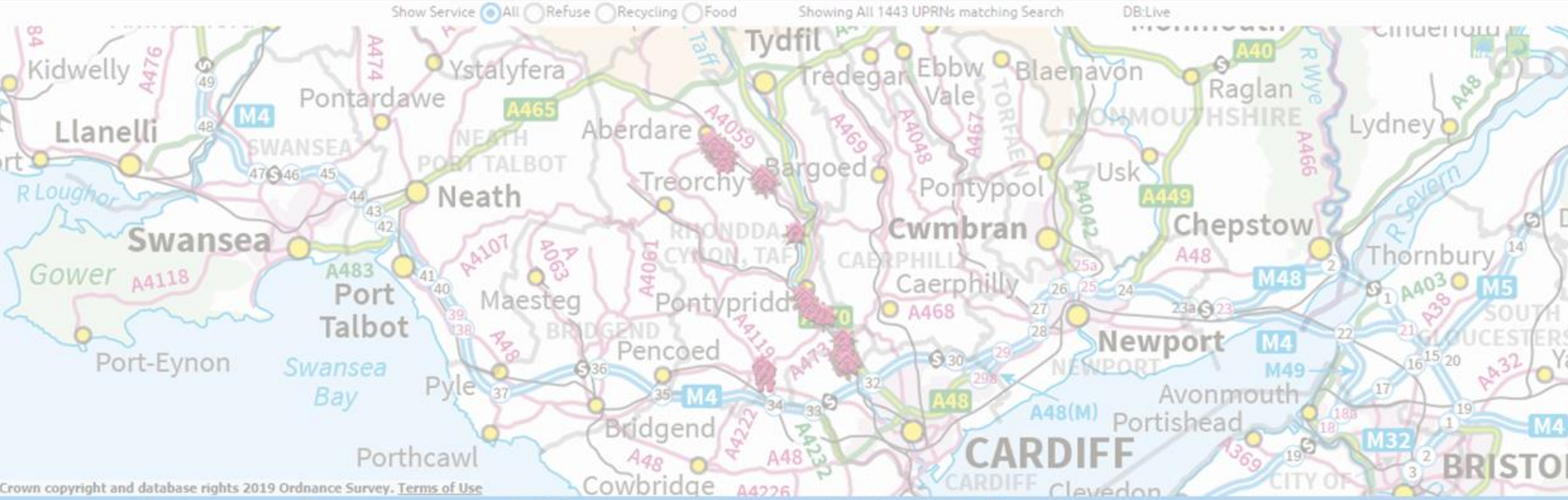
Easy Route Pro

Easy Route Pro

- Main system used for Rounds Optimisation and Management
- Provides statistical information on times, weights, housing types and more
- Able to take data from InCab to influence round changes
- Main aim for the software is to improve allocation of resources

Round Changes Process





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Address	Streetname	PostCode	Locality	Assisted	MissedBins	Comments
43	CARDIFF ROAD	CF45 4PL	ABERCYNON	No	No	Rounds: E ▼ C
80	CARDIFF ROAD	CF45 4PL	ABERCYNON	No	No	Rounds: E ▼ C
81	CARDIFF ROAD	CF45 4PN	ABERCYNON	No	No	Rounds: E ▼ C
82	CARDIFF ROAD	CF45 4PN	ABERCYNON	No	No	Rounds: E ▼ C
83	CARDIFF ROAD	CF45 4PN	ABERCYNON	No	No	Rounds: E ▼ C
84	CARDIFF ROAD	CF45 4PN	ABERCYNON	No	No	Rounds: E ▼ C
85	CARDIFF ROAD	CF45 4PN	ABERCYNON	No	No	Rounds: E ▼ C
86	CARDIFF ROAD	CF45 4PN	ABERCYNON	No	No	Rounds: E ▼ C
87	CARDIFF ROAD	CF45 4PN	ABERCYNON	No	No	Rounds: E ▼ C
1	CARDIFF ROAD	CF45 4PL	ABERCYNON	No	No	Rounds: E ▼ C
2	CARDIFF ROAD	CF45 4PL	ABERCYNON	No	No	Rounds: E ▼ C
3	CARDIFF ROAD	CF45 4PL	ABERCYNON	No	No	Rounds: E ▼ C
4	CARDIFF ROAD	CF45 4PL	ABERCYNON	No	No	Rounds: E ▼ C

Collections



Collections

- Central hub of all the data
- Full address information for back office staff
- Add additional information for Crews i.e. Assisted Collections, Extra Allowance and Comments
- Live and **frequently** updated
- All related data in one place

ID ↑	Type ↑	Status ↑	Last Updated ↑	Customer ↑	Address	Priority ↑
19	Bulky Uplifts	closed	19/02/2019 08:09	Des Rhondda		Unset
18	Bulky Uplifts	closed	19/02/2019 08:09	Des Rhondda		Unset
17	Trade Waste Request/Missed/Extra Collections/Purchase of Trade Bags	closed	19/02/2019 08:09	Des Rhondda		Unset
16	Bulky Uplifts	closed	19/02/2019 08:10	Des Rhondda		Unset
15	Service Bins	closed	12/12/2018 10:37	Des Rhondda		Unset
14	Assisted Collection Request	closed	19/02/2019 08:10	Des Rhondda		Unset
13	Assisted Collection Request	closed	28/11/2018 10:09	Des Rhondda		Unset
12	Assisted Collection Request	closed	21/11/2018 10:02	Des Rhondda		Unset
11	Assisted Collection Request	closed	21/11/2018 10:02	Des Rhondda		Unset
10	Trade Waste Request/Missed/Extra Collections/Purchase of Trade Bags	closed	29/10/2018 14:58	Des Rhondda		Unset
9	Missed Bin	closed	29/10/2018 14:22	Des Rhondda		Unset
8	Assisted Collection Request	closed	29/10/2018 13:50	Des Rhondda		Unset
7	Additional Bin	closed	25/10/2018 12:34	Des Rhondda		Unset
6	Bulky Uplifts	closed	25/10/2018 11:18	Des Rhondda		Unset
5	Service Bins	closed	24/10/2018 13:36	Des Rhondda		Unset
4	Assisted Collection Request	closed	24/10/2018 11:33	Des Rhondda		Unset
3	Assisted Collection Request	closed	24/10/2018 09:59	Des Rhondda		Unset

Workflow



Workflow

- Manages processes of Customer Cares, Web Forms and Requests
- Automatically allocates to the correct Round / Crew
- Optimises routes for improved travel
- Issue tasks/CRMs to crews to complete
- Satellite Navigation to help Drivers

Issue Cnt 717	Manual Entry Issue	Search House No / Name	Streetname	Town	Postcode	UPRN	Round	Location	Date	Time	Crew ID
	Contamination:Wallpaper Carpets Textiles	108	ROAD	MAERDY	CF43 4AG	100100748101	Fri Week1 Recycling 12		08Mar19	11:46	6378
	Contamination:Nappy Waste	103	ROAD	MAERDY	CF43 4AG	100100748096	Fri Week1 Recycling 12		08Mar19	11:46	6378
	Contamination:Wallpaper Carpets Textiles	MOUNTAIN VIEW	GRAIGWEN ROAD	PONTYPRIDD	CF37 2HD	100100752307	Fri Week1 Recycling 31		08Mar19	10:56	4113
	Bin Not Out	5	PEN-YR-HEOL	PENYWAUN	CF44 9EA	100100696953	Fri Week1 Refuse 22		08Mar19	10:54	6296
	Bin Not Out	4	PEN-YR-HEOL	PENYWAUN	CF44 9EA	100100696952	Fri Week1 Refuse 22		08Mar19	10:54	6296
	Bin Not Out	3	PEN-YR-HEOL	PENYWAUN	CF44 9EA	100100696951	Fri Week1 Refuse 22		08Mar19	10:54	6296
	Contamination:Recycling Bag Used	40	DAN-YR-HEOL	PENYWAUN	CF44 9DY	100100696386	Fri Week1 Refuse 22		08Mar19	10:43	6296
	Food Bin / Bags Not Out	10	GLAS CWM	YNYSYBWL	CF37 3DG	200003768723	Fri Week1 Recycling 35		08Mar19	10:42	7284
	Food Bin / Bags Not Out	12	GLAS CWM	YNYSYBWL	CF37 3DG	200003768725	Fri Week1 Recycling 35		08Mar19	10:41	7284
	Recycling Bags Not Out	12	GLAS CWM	YNYSYBWL	CF37 3DG	200003768725	Fri Week1 Recycling 35		08Mar19	10:41	7284
	Recycling Bags Not Out	5	BRYN RHEDYN	YNYSYBWL	CF37 3DP	100100716535	Fri Week1 Recycling 35		08Mar19	10:38	7284
	Food Bin / Bags Not Out	5	BRYN RHEDYN	YNYSYBWL	CF37 3DP	100100716535	Fri Week1 Recycling 35		08Mar19	10:38	7284
	Contamination:Recycling Bag Used	26	EAST STREET	PONTYPRIDD	CF37 4PH	100100751301	Fri Week1 Refuse 31		08Mar19	10:38	5182
	Food Bin / Bags Not Out	7	BRYN RHEDYN	YNYSYBWL	CF37 3DP	100100716537	Fri Week1 Recycling 35		08Mar19	10:38	7284
	Recycling Bags Not Out	9	BRYN RHEDYN	YNYSYBWL	CF37 3DP	100100716538	Fri Week1 Recycling 35		08Mar19	10:38	7284
	Food Bin / Bags Not Out	9	BRYN RHEDYN	YNYSYBWL	CF37 3DP	100100716538	Fri Week1 Recycling 35		08Mar19	10:38	7284
	Contamination:Recycling Bag Used	6	EAST STREET	PONTYPRIDD	CF37 4PH	100100751301	Fri Week1 Refuse 31		08Mar19	10:37	5182
	Recycling Bags Not Out	13	BRYN RHEDYN	YNYSYBWL	CF37 3DP	100100716539	Fri Week1 Recycling 35		08Mar19	10:37	7284
	Food Bin / Bags Not Out	13	BRYN RHEDYN	YNYSYBWL	CF37 3DP	100100716539	Fri Week1 Recycling 35		08Mar19	10:37	7284
	Bin Not Out	71	DAN-YR-HEOL	PENYWAUN	CF44 9EB	100100696416	Fri Week1 Refuse 22		08Mar19	10:36	6296
	Food Bin / Bags Not Out	17	MAES GLAS	YNYSYBWL	CF37 3EJ	100100717898	Fri Week1 Recycling 35		08Mar19		7284
	Food Bin / Bags Not Out	20	MAES GLAS	YNYSYBWL	CF37 3EJ	100100717901	Fri Week1 Recycling 35		08Mar19		7284
	Food Bin / Bags Not Out	13	MAES GLAS	YNYSYBWL	CF37 3EJ	100100717904	Fri Week1 Recycling 35		08Mar19		7284
	Food Bin / Bags Not Out	18	MAES GLAS	YNYSYBWL	CF37 3EJ	100100717899	Fri Week1 Recycling 35		08Mar19		7284
	Food Bin / Bags Not Out	9	MAES GLAS	YNYSYBWL	CF37 3EJ	100100717891	Fri Week1 Recycling 35		08Mar19	10:33	7284

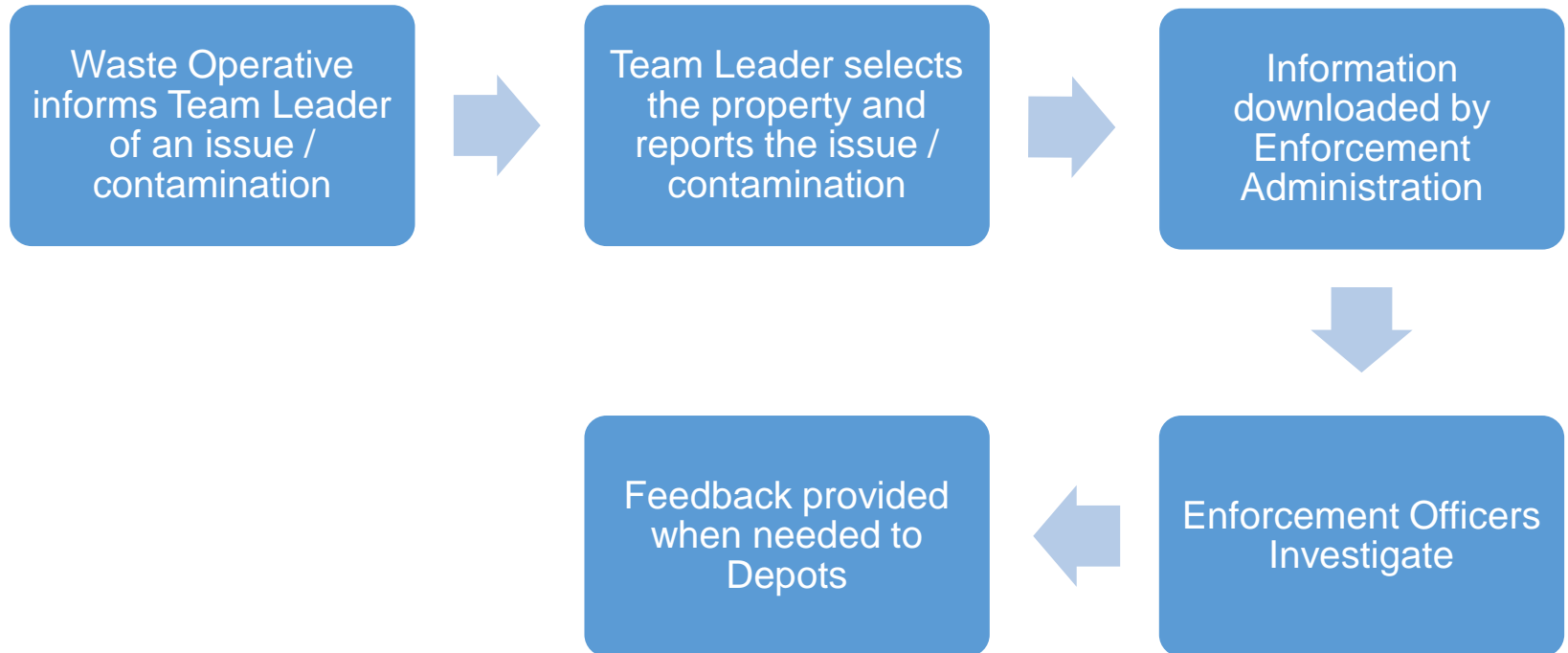
InCab



InCab

- Oversee the progress of Rounds and vehicles
- Provides live information on the issues reported - Linked to CRM
- Enables Area Managers / Supervisors to view progress to better manage resources to support crews
- Downloadable data for Waste Operations and Enforcement

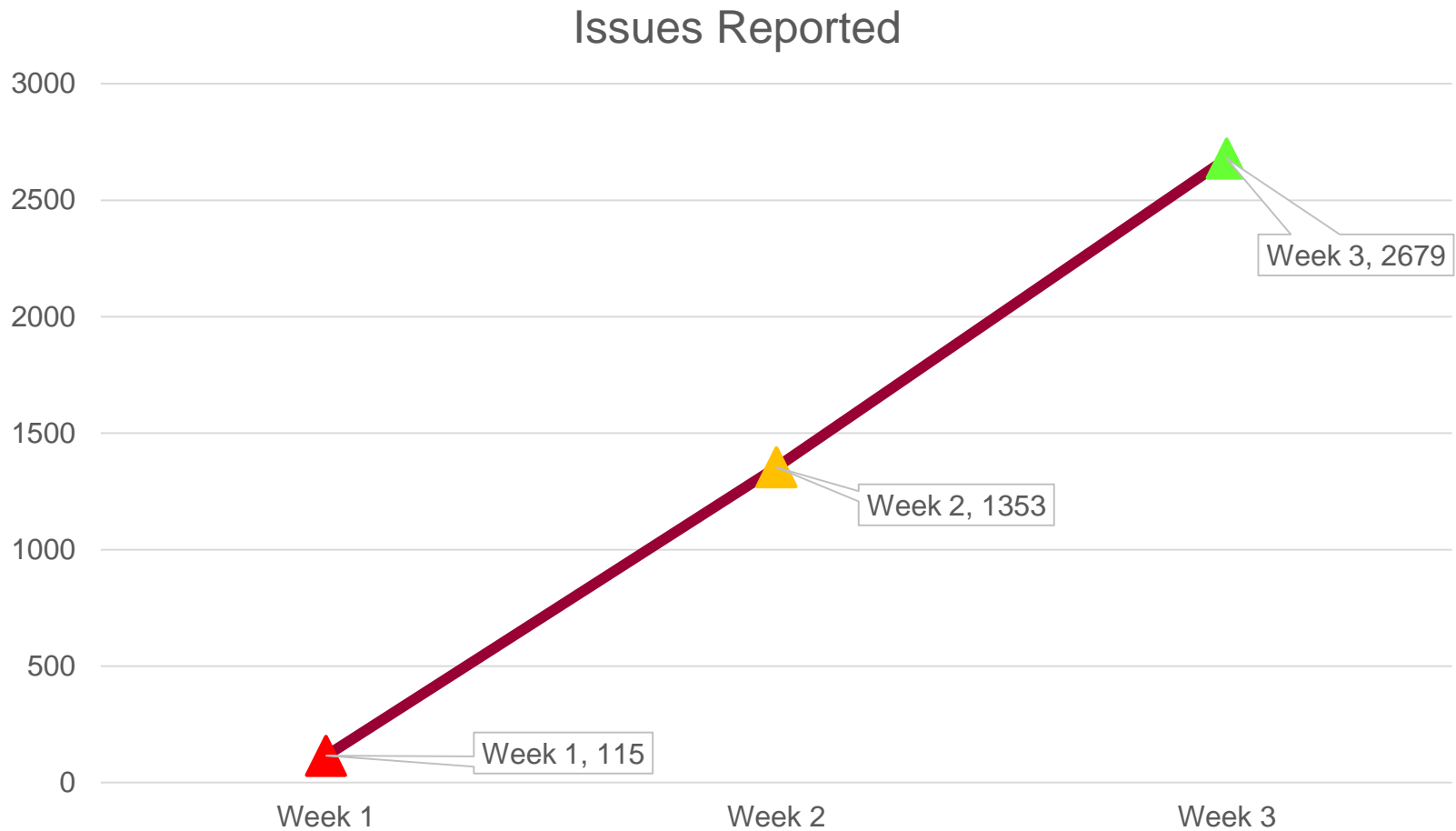
New Process for PI's



InCab

- 61 installed
- 10 waiting for new vehicles i.e. Nappies
- Ongoing testing and implementation by CRM / Web Team
- 54 Reportable Issues
 - 26 Enforceable
 - 7 Awareness
 - 33 Operational
 - 37 Strategic

Training Initial Results



Issues Reported to Date

37,547

InCab Device



RHONDDA CYNON TAF



Login Messages Hazards Navigate Job List (0) Collections Street List

Tue Week 1 Refuse 1

Itinerary Date: 2011/2010

DriverID:

Password:

Optional CrewID 1:

Optional CrewID 2:

Logout

Switch Round

3G/4G █ GPS █ 7

Tools Auto Blank screen

Login Select Round

Round Selected: All

Mon Tue Wed Thu Fri Sat Sun

< Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 >

Refuse Recycling Organic Trade Food Small Mech Large Mech

Refuse Bags Recycling Bags Glass Bulky Missed Service Bins

< 0 1 2 3 4 5 6 7 8 9 >

Start Round

Login Messages Hazards Navigate Job List (0) Collections Street List

11 Carna, Argyle Grove, Dunblane	13, Argyle Grove, Dunblane	9, Argyle Grove, Dunblane	15, Argyle Grove, Dunblane
17, Argyle Grove, Dunblane	7, Argyle Grove, Dunblane	5, Argyle Grove, Dunblane	19, Argyle Grove, Dunblane

All streets (Closest)

S- P- 0 P+ S+ !

Assisted ExtraBin Comment PromptC

Login Messages Navigate Job List (0) Street List Collections

HILL STREET, RHOSLANERCHRUGOG	CEMETERY ROAD, RHOSLANERCHRUGOG	To Depot
WERN LAS, RHOSLANERCHRUGOG	PEN Y GRAIG, RHOSLANERCHRUGOG	To Tip
QUEEN STREET, RHOSLANERCHRUGOG	PEN Y WERN, RHOSLANERCHRUGOG	A to Z
PRINCES ROAD, RHOSLANERCHRUGOG	ERW LAS, RHOSLANERCHRUGOG	Route Order
KING STREET, RHOSLANERCHRUGOG	STRY Y GOF, RHOSLANERCHRUGOG	Closest First
VICTORIA STREET, RHOSLANERCHRUGOG	MARKET STREET, RHOSLANERCHRUGOG	
STRY LAS, RHOSLANERCHRUGOG	CHURCH STREET, RHOSLANERCHRUGOG	
WERN LANE, RHOSLANERCHRUGOG	BONC WEN, RHOSLANERCHRUGOG	

Login Messages Navigate Job List (0) Street List Issue

Farmhouse Pentwyn Uchaf Farm, Road To Pentwyn Uchaf Farm, Tynteto

Bin Not Out Parked Cars No Turning Point 1st Vehicle Blocking Acc Contamination Damage

Other

Cancel

Login Messages Navigate Job List (0) Street List Contamination

5, Tyn-Y-Coedcae, Treherbert

Electrical Items Oil or Liquid Chemicals Paint Tins Wood Cigarette Ends Wallpaper Carpets

Green Waste Food in Rec Bags Nappy Waste Animal Waste Food in Packaging Non Food Items

Cancel

Login Messages Navigate Job List (0) Street List Actions

5, Tyn-Y-Coedcae, Treherbert

Small Electrical Small pieces of Wood Hard Plastic (Toys) Small amount of clothes Small amount of Tiles Videos or CDs

Books or Stationary

Cancel

Login Messages Navigate Job List (0) Street List Damage Issues

Farmhouse Pentwyn Uchaf Farm, Road To Pentwyn Uchaf Farm, Tynteto

Bin In Vehicle Broken Lid Broken Wheels

Cancel

Login Messages Navigate Job List (0) Street List Other Issues

5, Tyn-Y-Coedcae, Treherbert

Locked/No Key/Code 2nd Vehicle Blocking Acc Road Works Road Traffic Collision Access Issue Vehicle Size Vehicle within Junction

Vehicle in Cul-De-Sac General Contaminatio

Cancel

The Future

- Using Pick Rate Data to increase efficiencies
- Further integration of other services that Waste Services rely on, Enforcement, etc
- Digital Signage
- Business Intelligence (Analytics)

THE CHOICE IS CLEAR.



EVERYONE NEEDS TO RECYCLE

Any questions?

