

Route Optimisation

Caerphilly County Borough Council

Our journey to a more efficient and sustainable service

A greener place Man gwyrddach



Who are we?

- Mark Miller and Graham Owen - Refuse and Cleansing Supervisors
- Length of time working at Caerphilly CBC
- What is involved in the role?

A greener place Man gwyrddach



Organisation Background

- Caerphilly County Borough Council under the Community and Leisure Services Division
- Waste Strategy and Operations - employs 270 staff across the service area
- We operate a range of services including:
 - Collection of municipal and commercial wastes (refuse, recycling and compostable)
 - Operation of the Waste Transfer Station and Civic Amenity Sites
 - Collection of bulky household goods
 - Cleansing of highways and other relevant land

A greener place Man gwyrddach



What was the problem?

- Severe financial pressures and budget constraints as a result of funding reductions from the Welsh Government
- The development of our 2014/15 Medium Term Financial Plan – for our service area savings required were approx. £720,000
- To reduce costs on this scale a number of savings were identified:
 - Reduction in the number of vehicles to operate the service
 - In turn this would lead to a reduction in vehicle maintenance costs
 - Reduction in staff – succession planning and not replacing staff as they retired
 - Reduction in mileage and fuel costs

What was the solution?

- The WM Design route optimisation software was identified as a solution to our problem to achieve savings on the scale required
- This would ensure we could achieve the Medium Term Financial Plan savings required for the department
- It would also ensure that we could deliver a more efficient and sustainable waste collection service which would result in a reduction in the number of staff required to deliver the service
- The training and support packages offered by Webaspx were essential for this.

Implementation

- **Populating the baseline data (timescale 2-3 months)**
 - Inputting data including the existing refuse, recycling and food/garden rounds, nappy/hygiene/assisted collections, communal collection points etc.
 - Details including pick rates (average), vehicle & bin weight, payload, number of properties, restricted access points, vehicle speeds etc.
 - Assigning location of the depots
- **Running and polishing the new rounds**
 - The Webaspx software run the new rounds to improve efficiency & cost effectiveness
 - Input from crews was essential at this point to ensure the new rounds were achievable in practice

Implementation

- **Large communication campaign to target tens of thousands of properties**
 - This was essential prior to the changes becoming live
 - Involved letter dropping affected properties to inform of collection day changes
 - Widely advertised on Social Media, the Internet and Newsline
 - Councillors and Trade Unions kept up-to-date throughout the entire process

Improvements to waste collection

Some residents could see changes to their waste collection as the council transforms the way it collects waste from homes around the county borough.

This month (from 15th September) the council will run new WMDesign optimisation computer software that will make the routes used by waste collection lorries more efficient, cost effective and environmentally friendly.

As a result of the new routes some residents may see changes to the days their kerbside

recycling, refuse, food and garden waste is collected. Over the last few weeks, officers from the council's Waste Management team have been posting information leaflets to all residents to notify them of any changes to their collection days.

Cllr David Poole said: "This new software has the capacity to recalculate our waste collection routes and improve efficiency whilst also cutting down on fuel costs and emissions.

"To minimise disruption, information fliers have been posted to all properties. While not all residents will see an alteration to their collection

day there may be a change to the collection times, so please ensure all containers are placed at the collection point by 6am.

"Caerphilly county borough residents have already played a leading role in ensuring that as a council we have one of the best recycling rates in Wales, and I would like to thank all of our residents for their patience while these new changes take effect."

For more information please call 01443 866533 or visit www.caerphilly.gov.uk

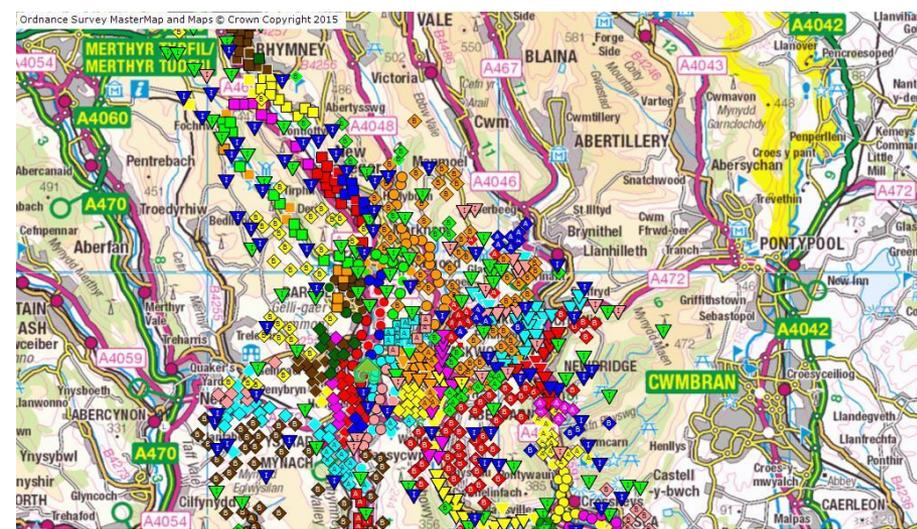


The Result (Benefits)

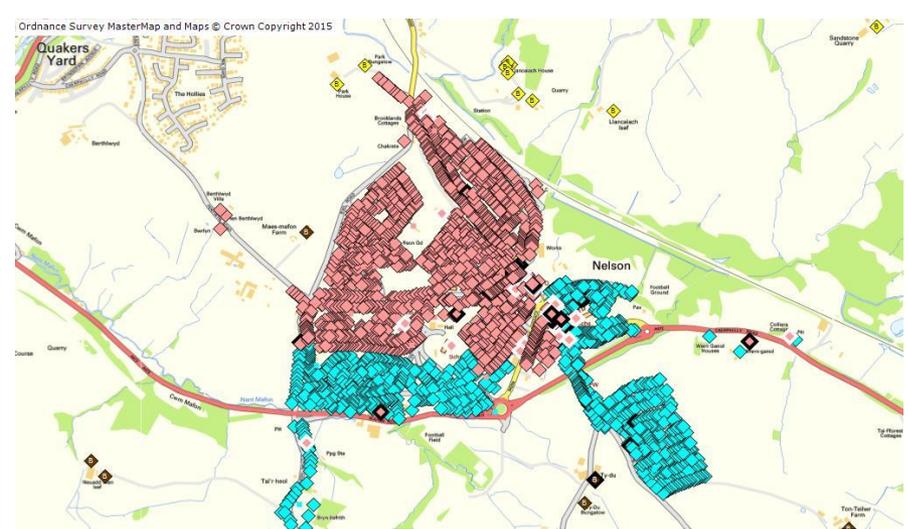
- **Improvements to service:**
 - Rounds more consistent and equal, with the workload balanced - crews given a fair day's work
 - No job losses - staff not replaced as they retired prior to route optimisation
 - Store all information electronically in one place (hygiene, assisted, residential, commercials etc.) - a more efficient, secure and sustainable way of recording information
 - View and change the rounds easily on the laptop
 - Ability to easily print route risk assessments and maps for crews

A greener place Man gwyrdach

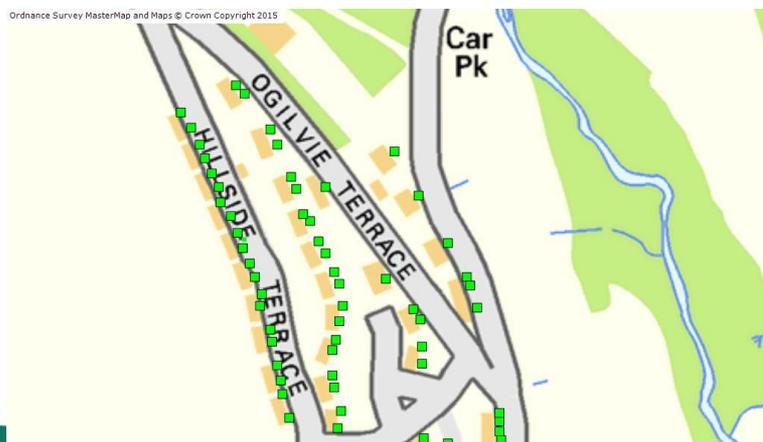




View all rounds on screen



View specific rounds on screen



View individual streets

A greener place Man gwyrdach



The Result (Benefits)

- **Partnership working:**
 - Working in partnership with collection crews and supervisors was important from the initial planning stages through to implementation due to their knowledge of the borough
 - This partnership was especially important during the 'polishing' stages to ensure the rounds were achievable in practice
 - This working relationship also ensured the collection crews felt involved and were kept up-to-date throughout the entire process which kept them on board with the changes
 - Essential to work in partnership with internal departments including IT and Communications. These departments are key to ensuring customers receive accurate and timely information on service changes.

A greener place Man gwyrdach



The Result (Benefits)

- **Financial:**

- Rounds have become more efficient and consistent – saving time on previously heavy rounds and adding time to light rounds
- Reduction of 3 vehicles (1 vehicle per service food/garden, refuse & recycling)
- Reduced fuel and vehicle maintenance bills
- Reduction in carbon emissions
- Reduction in staff costs

A greener place Man gwyrdach



Additional resources required?

- Having the correct I.T equipment – we required a new laptop with a specification suitable to run the software
- Dedicated member of staff from the start – November 2013 – October 2014. We were lucky to employ someone from the Passport to work scheme
- On going maintenance and day-to-day updating – adding/removing commercial customers, changes to collection days, alterations to the nappy, hygiene and assisted collection service – 2 members of staff

Lessons learnt

- It is essential to have adequate staff available to undertake the work required who are suitably trained
- Lack of I.T expertise in the department can be an issue – getting the support of the I.T department is essential
- Involve Trade Unions from the start to get staff on board - joint working
- Important to have support from the supervisors, drivers and loaders from the start

Any problems?

- We are still tweaking the rounds 6 months on
- Bank holidays produce excess waste – no spare capacity due to a reduction in vehicles
- Complaints increased for “missed collections” – residents take time to adapt to their new collection days
- Getting the crew to commit to these changes

A greener place Man gwyrdach



Questions?

A greener place Man gwyrddach

