



## £248 000 saved by Newcastle City Council's Waste Management Team



**Newcastle City Council has redesigned waste management collections using a combination of Ordnance Survey data, GIS software and vehicle tracking.**

### The challenge

Under the European Union Waste Management Directive, the UK is required to reduce the amount of waste going to landfill by 75%; and with waste management being one of the largest areas of local authority expenditure, many councils are making strenuous

efforts to improve the efficiency of waste collection services. The growth in housing and population throughout Britain is generating significant increases in service demand.

### The solution

Ordnance Survey's OS MasterMap® Integrated Transport Network™ (ITN) Layer was used to remodel the refuse collections for 117 000 properties, helping to reduce the number of required vehicles whilst still maintaining a weekly service.

The routes are now 'balanced' in terms of working hours, with each crew having the same amount of work. As a result, the Council has been able to expand the popular garden refuse collection service to 57 000 properties and introduce a new weekly recycling 'blue bin service' using nine vehicles.

In total, 205 routes have been remodelled or introduced.

The ITN Layer is the definitive national road network for Great Britain. It

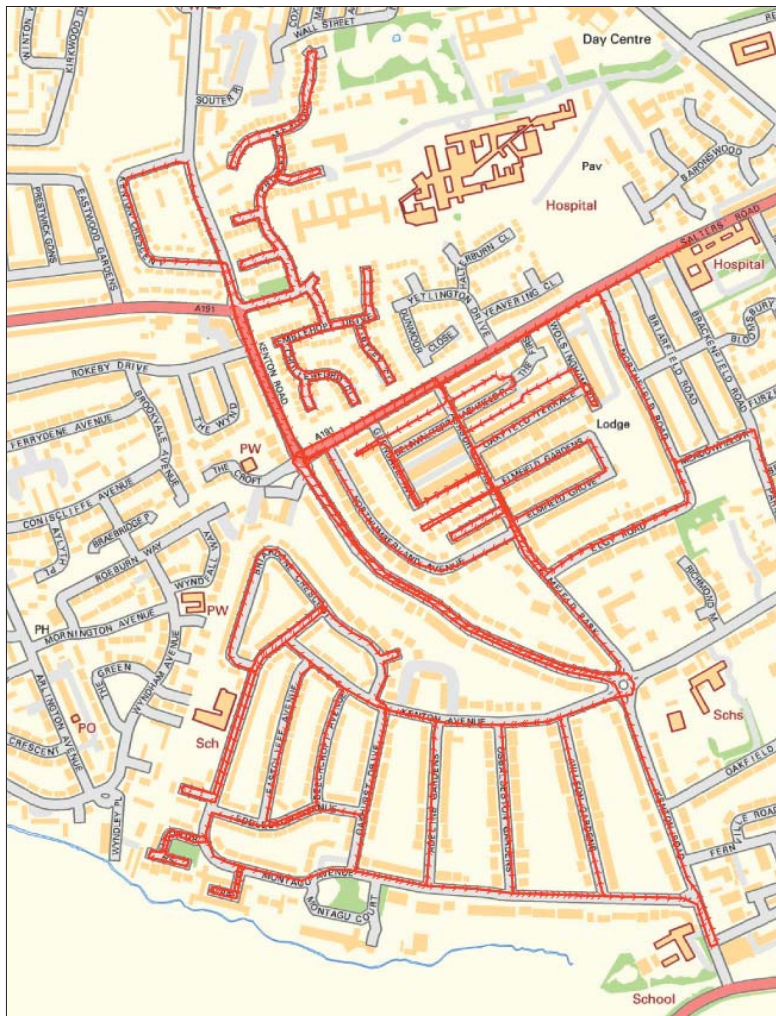


provides a flexible foundation for publishing, transport, telematic and asset management solutions and can be fully integrated with all OS MasterMap layers – for example, within OS MasterMap Address Layer 2 for to-the-door routing.

ITN Layer is currently supplied to all local authorities under the Mapping Service Agreement and from 1 April next it will be included in the Public Sector Mapping Agreement together with the associated Road Routing Information and the Urban Paths theme.

### The benefits

- Reduction in fleet numbers, saving an initial £100 000 on vehicle procurement.
- A further £148 000 through fuel, crew and vehicle fixed cost savings predicted.
- Models suggest that the new system will mean that 13 000 fewer miles are driven each year.
- Similar route optimisation project currently in progress for the other eleven authorities across the north east (supported by the North East Improvement & Efficiency Partnership).



Optimised route around the addresses in the collection round.

### Return on investment

*'Although a number of authorities are currently using Ordnance Survey data to support waste collection, the team at Newcastle has delivered significant efficiencies and benefits. Not only is Newcastle looking to adopt similar techniques for other service delivery units across the authority, but surrounding councils have started similar projects with support from the North East Improvement & Efficiency Partnership.'*

Ian Carter,  
Strategic Development Manager,  
Ordnance Survey.

### Products:

- OS MasterMap Integrated Transport Network Layer



Addresses for one of the collection rounds in Newcastle.

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