

Maximising value for money with a new approach to waste services procurement

Westminster City Council

The Challenge

- Ensure the cost effective procurement of waste collection services

The Benefits

- More informed decisions about supplier appointments
- Potential annual cost savings of £2 million
- Rapid insight into complex public service requirements
- External consultancy fees of £20,000 avoided

Westminster City Council has made innovative use of GIS to help ensure that new tenders for its £225 million waste disposal contracts offer the best possible value for money. It anticipates that its new approach to waste services procurement could contribute to avoided costs of up to £2 million a year.

The Challenge

Every year, a staggering 190,000 tonnes of rubbish are generated by households and businesses in the City of Westminster, enough to fill the Royal Albert Hall 26 times over. With the two main contracts for the recycling and disposal of this waste coming up for renewal, the council's cleansing department wanted to make absolutely certain that it selected suppliers who could offer optimum value for taxpayers' money.

With growing congestion on London's roads along with high fuel costs, the council realised that travel time to and from vehicle depots, waste treatment sites and recycling facilities was a significant factor influencing the cost of waste disposal services. So, in its tender documents for the new contracts, it wanted to encourage bids from contractors who had sites within a short drive-time of the centre of the borough.

The key challenge for the cleansing department was how to accurately measure drive-times for its waste collection vehicles, on busy streets, and along hundreds of alternative routes, at different times of the day. The council initially approached a firm of transportation consultants, which quoted £20,000 to undertake a drive-time analysis project. However by consulting the council's internal geographic information system (GIS) department, the cleansing department realised it had an alternative means of addressing the challenge, using existing resources.

The Solution

Westminster City Council has been using solutions from Esri's ArcGIS platform for many years and the GIS team had recently begun to explore ArcGIS Online. Following a conversation with the council's cleansing department, the GIS lead at Westminster City Council used ArcGIS Online and network routing data for central London to put together an initial proof of concept, based on the average drive-times of cars. It took him just 15 minutes and even with this first ArcGIS Online map, the cleansing department was extremely impressed.

Next, the council's GIS team incorporated GPS data from its waste collection trucks, which gave it the actual, average speeds of its own vehicles, at different times in the day. It then worked closely with the cleansing department to analyse the data and produced a map (in web and pdf formats), showing a 35-minute drive-time boundary from Marble Arch, the centre of the borough. "ArcGIS Online makes it extremely easy to adjust and produce maps, so the cleansing department could experiment with different drive-time limits and drive-time boundaries at little cost and in little time," says Jarno Stet, Waste Services Manager at Westminster City Council.

“ ArcGIS Online helped Westminster City Council to make evidence-based decisions and ensure the most effective use of public funds in the management of waste services. ”

Jarno Stet, Waste Services Manager, Westminster City Council



The Benefits

Westminster City Council embedded the ArcGIS Online map into its tender documents for new waste collection contracts enabling it to give favourable consideration to bids from contractors with sites within the delineated 35-minute drive-time area. This focused procurement approach delivered significant benefits including:

Evidence-based decision making

With its new insight into the optimal operation of waste collection vehicles, the council could set meaningful criteria for prospective new contractors and make appointments based on facts. As Stet says, “ArcGIS Online helped Westminster City Council to make evidence-based decisions and ensure the most effective use of public funds in the management of waste services.”

Value for money for taxpayers

By appointing contractors with the closest sites, Westminster City Council minimised the cost of fuel and employee time, and ensured that contracts represented the best possible value for taxpayers’ money. Stet explains: “The cost implications of selecting contractors with waste treatment sites with unacceptable travel distances could add up to £6 per mile. When this figure is multiplied by the number of miles travelled every year, the number of vehicles we operate, staff labour and overtime cost, the total annual avoided cost could be as much as £2 million.”

Fast insight into complex challenges

ArcGIS Online gave the council a fast and flexible solution to its challenge, enabling it to find the answers to its drive-time question within the tight timescale of the procurement process. Using ArcGIS Online, the GIS lead was able to conduct drive-time analysis and produce a detailed map in minutes, for an expenditure of around 30 pence in user credits.

Return on annual investment in GIS

Whereas external consultants had quoted £20,000 to perform drive-time analysis, Westminster City Council was able to complete the project itself, using its existing licence for ArcGIS Online and the skills of in-house staff. With the consultancy fee savings from this one small project, the council offset the entire GIS software spend for the year. “ArcGIS will continue to play an important role in future waste contract procurements, as well as similar projects in other departments, giving us long-term value for money,” Stet says.

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