

FAREHAM

BOROUGH COUNCIL

Report to Streetcene Scrutiny Panel

Date: 17 October 2019

Report of: Head of Streetscene

Subject: ROUTE OPTIMISATION OF WASTE COLLECTION ROUNDS

SUMMARY

The purpose of this report is to provide an update on the rebalancing of the waste collections rounds. Round balancing is the process of ensuring that the refuse and recycling collection rounds have the appropriate number of properties on each round to maximise collection capability in the most efficient manner.

RECOMMENDATION

Members of the panel are invited to scrutinise the current arrangements of the refuse and recycling rounds.

INTRODUCTION

1. The Borough has eight refuse and recycling collection rounds that have remained largely unaltered since the introduction of alternate weekly collections in 2005.
2. The last time the rounds were re-balanced was in 2008 when a more equitable distribution of collections was required because of new development. This resulted in approximately 2000 residents having their collection day changed and some 300 having their collection week changed.
3. There has been significant housing development in the intervening years, particularly in the western wards. This means that some rounds have now reached capacity.

BACKGROUND

4. The collection crews are made up of one driver and two loaders, the service operates eight frontline freighters. During a year the distance covered by the freighters amounts to some 74,000 miles.
5. To facilitate collections, the Borough is split into two halves, East and West, for refuse and recycling. Residual waste is collected in the East whilst recycling is collected in the West. This enables the eight crews to do recycling and residual refuse on alternative weeks.

CURRENT COLLECTION ISSUES

6. The make-up of an efficient collection round has certain complexities e.g. distance of tip runs for the crews, housing types (rounds with a high number of flatted properties tend to be very efficient in terms number of properties and time taken to empty the bins).
7. Significant housing development, particularly in the western wards, means collection rounds have now reached capacity. Across the 40 collection days the current daily average of bins collected per day is 1247. This means most rounds now require two trips to the tip full loads of residual waste.
8. Crews collect from some 50,000 properties weekly, some crews have particularly heavy collection days and require assistance to avoid a third tip run on residual collections. The crews still operate a buddy system; however, the effectiveness of this system has dwindled in recent years as the collection rounds continue to grow. This means that crews are often in a position where they can only offer little help, if any, to other crews.
9. In addition, with residual waste collection, to avoid an uneconomical third tip run to deposit loads, on some collection days an additional vehicle and crew are used to assist. The additional vehicle essentially skims tonnage off the other four residual collection crews to avoid having to tip a third load. This avoids crews consistently working past their contracted hours. The additional vehicle currently operates on a Monday, Tuesday & Wednesday the east of the Borough, and Wednesday, Thursday & Friday in the west of the Borough.

10. In January 2019, the entire refuse fleet was fitted with tachographs, although not a legal requirement for domestic collections, it ensures crew take their required rest breaks. This is an important first step when considering route optimisation as the driver information recorded offers an accurate appraisal of the working day when re-modelling the rounds.
11. The introduction of Euro 6 emission standards in September 2015 and the fitting of pedestrian safety equipment has had an impact on vehicle capacity. The payload capacity of most of the refuse fleet has been reduced by approximately 440 kg per vehicle.

CONCLUSION

12. The traditional method of rebalancing rounds has been undertaken by way of a paperwork desk top exercise, this can be very time consuming and has limitations. Local authorities, be it in house or contracted out, are now tending to move towards using route optimisation software.
13. Software can be purchased which, initially balances rounds, and then optimises routes to minimise operational costs of the service and maximize efficiencies. Route optimisation is also able to model different collection types, this would be of benefit when designing new rounds that incorporate any legislative requirements resulting from the outcome of the Resources & Waste Strategy.
14. Officers are currently investigating different types of route optimisation software to determine if this provides an efficient and effective way to ensure optimised collection rounds. This will then help to ensure the service can respond and remain resilient to increased housing and responsive to any future changes to collection arrangements.

Background Papers:

Reference Papers:

Enquiries:

For further information on this report please contact Gary Squire. (Ext 4847)