REPORT TO:	**FINANCE AND MANAGEMENT COMMITTEE**	**AGENDA ITEM: 11**
DATE OF MEETING:	**7th JANUARY 2020**	**CATEGORY:** **DELEGATED**
REPORT FROM:	**STRATEGIC DIRECTOR (SERVICE DELIVERY)**	**OPEN**
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SUBJECT:	**REFUSE COLLECTION ROUTE OPTIMISATION**	
WARD(S) AFFECTED:	**ALL**	**TERMS OF REFERENCE: FM08**

1. Recommendations

1.1 That the Committee endorses the Business Case in **Appendix 1** that sets out the basis for the requirement to implement a route optimisation project and purchase the necessary consultancy and software.

1.2 That the Committee approves a contribution of £65,000 from the Growth provision for the implementation.

1.3 That the Committee approves the additional £7,000 per annum annual licence costs to be offset by reductions in the fuel budget.

1.4 That the Committee approves procurement through the most appropriate technology framework currently available.

2.0 Purpose of the Report

2.1 To seek approval to commence a business transformation project to optimise refuse collection routes. This would incur an implementation cost of around £65,000, together with ongoing costs of an additional £7,000 per annum.

3.0 Detail

3.1 Operational Services currently provides household waste collection services to over 46,000 residential properties spanning 2300 streets across the District. The waste collection routes currently in operation were derived from analysis work carried out over six years ago, with some updating over three years ago, using basic analysis tools and specialist knowledge from the senior officers within the Service. Since this work the District has grown by more than 5000 dwellings. The current rounds are calculated on a street basis, not individual property basis which does not provide the detailed information that is essential for a data-driven, customer focussed service.

3.2 To ensure that a resilient operating model is in place to resource front line waste and cleansing services, it has been identified a more sophisticated approach is needed to understand the impact of and meet the demands of growth, both in terms of ensuring adequate resources are available for the short term, but also in data modelling and forecasting of demand for the medium/long term.

3.3 A project team has been formed to research the options for the use of route optimisation consultancy and route optimisation software which can modernise the Service and use data to inform decisions, optimise service delivery and plan for future growth.

3.4 The current review of waste collection services and the implementation of the new Environment Bill will undoubtedly necessitate the reorganising of collection routes and the planning of new collection methods. Route optimisation software will enable officers to analyse the impacts and undertake scenario mapping. This will reduce both the financial and reputational risk of implementing new collection systems.

3.5 Should approval for the route optimisation project be given, then the future planned growth, approved by this Committee in September and by Finance and Management Committee in October would only be implemented where resource increases were identified by route optimisation.

3.6 Refuse collection vehicles account for around £512k of the total transport budget of £603k. The current budget allocation for fuel and tyres for the refuse collection vehicles is £263k, this consists of £240k diesel and £23k tyres, for the purposes of this project only the potential savings on fuel and tyres has been incorporated into the business case. Other spare parts and maintenance consumables attributable to refuse collection vehicles is budgeted at £88k and could contribute an additional £11k in savings.

3.7 Case studies from various Councils have shown real savings in the region of 15% dependent on the type of changes being introduced, Scarborough Borough Council have increased Commercial waste income by £600k and reduced operating costs by £250k per year. Gwynedd Council have achieved annual savings of £1.5M through optimising routes. Fenland District Council achieved an initial saving of 8% on fuel and a further 11% on other costs following introduction of route optimisation.

3.8 Given that the primary savings are delivered on fuel costs which can at times be quite volatile the projected return on investment is assessed on the current diesel cost of £1 per litre if diesel costs were to reduce by as much as 35% the project would still deliver a return on investment within five years. Any increases in fuel costs would have less impact on efficiently optimised routes.

3.9 It is proposed to use the most appropriate framework available to procure the consultancy and software. If the Council were to perform a full tender exercise, it is very likely that the costs of implementation would be similar, but the process would take far longer to implement.

4.0 Financial Implications

4.1 The one-off implementation cost of £65,000 is proposed to be funded from the Growth Provision due to the need for additional software being as a result of exponential growth of the District in the last five years.

4.2 The following table shows the projected balance on the Growth Reserve. The Reserve can comfortably cover this additional one-off cost.

GROWTH RESERVE

	2020.21	2021.22	2022.23	2023.24	2024.25	2025.26
Balance B/fwd	1,121,759	577,041	639,671	704,205	501,911	505,165
Growth Drawdown - Reported Oct 20	-400,000	0	0	-172,294	0	0
General Fund Contribution	85,282	92,630	94,534	0	33,254	23,144
Transfer to Vehicle Replacement Reserve	-30,000	-30,000	-30,000	-30,000	-30,000	-30,000
Set-aside for Recycling Tender	-200,000	0	0	0	0	0
Balance C/fwd	**577,041**	**639,671**	**704,205**	**501,911**	**505,165**	**498,309**

4.3 Additional annual maintenance costs of £7,000 are proposed to be funded by a reduction in the annual fuel budget controlled by Operational Services.

4.4 A full financial assessment in section 3.5 of Appendix 1, demonstrates a potential return on invest over a five-year period of 217%.

Value for Money

4.5 Economy – Gross revenue budget savings of £33,000 per year, through reduced fuel usage and maintenance costs. Figure is based on the percentage of the transport budget directly attributed to refuse collection vehicles.

4.6 Efficiency – the purpose of the software is to produce balanced collection rounds which are efficient and achievable by design with the lowest possible resource use.

4.7 Effectiveness - Case studies from other local authorities show a median efficiency saving of 12.5%. With some local authorities achieving direct savings on a reduction in vehicles and a total saving in excess of 20% of transport budgets.

4.8 Equality – Better intelligence on individual properties improved planning for customers that require assistance or additional support.

5.0 Corporate Implications

Employment Implications

5.1 None

Legal Implications

5.2 None

Corporate Plan Implications

5.3 Under the Theme "*Our Future*" to provide modern ways of working that support the Council to deliver services to meet changing needs.

Risk Impact

5.4 Implementing new collection routes carries a high cost risk and reputational risk. Utilizing route optimisation software allows for routes to be determined taking into account all variables, increasing confidence that new routes will work in practice minimizing both cost and reputational risk.

6.0 Community Implications

Consultation

6.1 None required.

Equality and Diversity Impact

6.2 None

Social Value Impact

6.3 None

Environmental Sustainability

6.4 Reduced use of fuel by reducing vehicle miles will lead to lower emissions of CO2 achieved through using software designing more efficient routes.

6.5 Continually updating optimised routes at the point new properties come on stream will ensure the Council always achieves the lowest mileage, fuel use and CO2 emissions possible given the type of vehicles currently in use.