

## ROUTE OPTIMISATION UPDATE

---

### 1.0 INTRODUCTION

- 1.1 The Council has invested in a Route Optimisation system which will enable existing cyclic activities (bin collection, grass cutting, winter gritting etc) to be tested for efficiency and, where possible, remodel routes to be more efficient and effective. The system will enable modelling for potentially different service delivery policy options providing a range of options much quicker than conventional 'manual' modelling processes. At an operational level the system will provide works supervisors the flexibility to change routing in the event of vehicle breakdowns, road closures etc. The purpose of this report is to provide Members with an update on the development of the Route Optimisation project following the report to this Committee in March 2024.

### 2.0 RECOMMENDATIONS

- 2.1 It is recommended that Members of the Environment, Development and Infrastructure Committee:-
- Consider the progress with the Route Optimisation project;
  - Note the delays to the initial progress plan and the new milestones;
  - Note that monthly progress updates will be provided to Elected Members from January 2025 via the RIS Weekly Briefings; and
  - Note that a further update report will be brought back to the next Environment, Development and Infrastructure Committee meeting in March 2025 together with a demonstration of the system.

### 3.0 DETAIL

#### Background

- 3.1 The Council initially appointed Webaspx through a competitive procurement process. Webaspx are now a subsection of Routeware, an American Route Optimisation company who provide specialist software solutions in routing vehicles and individuals carrying out cyclic activities including waste management and general municipal activity.

3.2 Route Optimisation provides a system which enables routing of cyclic activity to be efficiently and effectively delivered. The Routeware system the Council has invested in, provides various capabilities, including, but not limited, to the following modules:

- **Route Optimisation** - enables new/alternative routes (bin collections and other cyclic activity) to be designed more efficiently whilst ensuring deliverability to reduce the risk of service disruption. This will enable existing collection routes to be tested for efficiency with the opportunity for replacement routes cutting down travel, costs and carbon emissions. Different scenarios for collection frequencies will be much easier and faster to model. This is expected to be hugely beneficial for the Biodegradable Municipal Landfill Ban, improvements to recycling percentages etc. The initial contract revolves around modelling refuse collection routes. Once this is an operational tool there will be future opportunities to upgrade the system for other activities such as winter maintenance, street sweeping etc which are intended to be subsequently modelled.
- **Digital Depot** – replaces paper and spreadsheet routes with cloud based data and automated workflows.
- **In-cab** – replaces paper route cards with touch screen tablets providing the crew and driver with the information they need to work both safely and efficiently. The in-cab technology also provides information to and from the back office which will bring customer service benefits in terms of being able to provide up-to-date information to the public. The system will also enable vehicles to be re-routed at an operational level to accommodate vehicle breakdowns, road closures etc.
- **Commercial waste** – at present this is not included in the contract however based on the experience with the domestic collections upgrading to include this module would give the ability to plan and operate commercial waste services efficiently whilst also enabling customer accounts to be managed allowing contracts to be easily updated and invoices issued.

3.3 Bin collection is being progressed as the first activity to be modelled. In doing so the system will be populated with all address points and collection locations allowing much of this data to be used for modelling of other activities. Bin collections also have the potential to offer a significant efficiency, this has been confirmed from feedback from other Councils and the system supplier.

### **Progress**

3.4 Initially the implementation of the Route Optimisation system was progressing well, after the initial upload of existing routes, all 48,000 households, civic amenity sites and tipping points loaded into the system. A number of

competing demands and staffing changes have led to some delay, however, the project is back underway. The table below summarise the next steps:

| <b>Activity</b>                                 | <b>Previous Timescale</b> | <b>Updated Estimated Timescale</b>  |
|---|---------------------------|---|
| In-cab installations                            | October 2024              | December/January 2025   |
| Completion of design files                      | October 2024              | November/December 2024  |
| Training and familiarisation                    | June 2023                 | Ongoing - training will be scheduled based on the completion of design files and in-cab installation. |
| System go live in pilot area                    | August 2024               | February/March 2025   |
| Evaluation, learning and any system adjustments | August 2024               | April/May 2025  |
| Wider rollout                                   | October 2024              | From May 2025 onwards   |

3.5 The report to the March 2024 Environment, Development and Infrastructure Committee was scheduling the go live date as August 2024, this has now slipped to the first pilot area going live in February/March 2025. As detailed above, this will be facilitated with in cab equipment being installed in November/ December for the pilot area.

3.6 Monthly updates on progress will be provided to Elected Members from January 2025 via the RIS Weekly Briefings, as well as a further update report together with a demonstration of the systems capabilities being brought to the Environment, Development and Infrastructure Committee in March 2025.

#### **4.0 CONCLUSION**

4.1 The new Route Optimisation system is a powerful tool which will provide opportunities to model different options, with this firstly being used for the bin collection routes followed by a wider range of cyclic activities. We anticipate that this system will bring about a number of efficiencies in terms of cyclic and logistical activities.

#### **5.0 IMPLICATIONS**

5.1 Policy – There are no direct policy implications arising from this report.

- 5.2 Financial – This project is funded from previous funding allocated by the Council. It is expected that there will be efficiencies once the system is rolled out and fully operational.
- 5.3 Legal – None known.
- 5.4 HR – None known.
- 5.5 Fairer Scotland Duty:
  - 5.5.1 Equalities - protected characteristics – Works from this project will be accompanied by a socio and economic impact assessment.
  - 5.5.2 Socio-economic Duty – None arising from this report.
  - 5.5.3 Islands – This project will look at both the mainland and islands and there is not deemed to be any adverse impact to island communities from this work.
- 5.6 Climate Change – There is potential to reduce the mileage covered by some vehicles, which would help to work towards reducing the Council’s carbon footprint. It is anticipated this will result in CO2 savings however this will not be fully known until the system is implemented.
- 5.7 Risk – None arising from this report.
- 5.8 Customer Service – the Route Optimisation system is expected to bring customer service benefits in terms of being able to provide up-to-date information to our service users.
- 5.9 The Rights of the Child (UNCRC) – None arising from this report.

**Executive Director with responsibility for Roads and Infrastructure Services:**  
Kirsty Flanagan

**Policy Lead for Roads, Transport and Amenity Services:** Councillor John Armour

December 2024

**For further information contact:**

Tom Murphy, Operations Manager  
[Tom.murphy@argyll-bute.gov.uk](mailto:Tom.murphy@argyll-bute.gov.uk)