

FAREHAM

BOROUGH COUNCIL

Report to the Executive for Decision 15 May 2023

Portfolio:	Policy and Resources
Subject:	Vehicle Replacement Programme
Report of:	Director of Planning and Regeneration
Corporate Priorities:	Dynamic, Prudent and Progressive Council Protect and Enhance the Environment

Purpose:

This report sets out the findings from a review of the Council's Vehicle Replacement Programme (VRP) and presents a proposed rolling replacement programme for the next 5-years. The purpose of the programme is to move to a modern fleet of commercial vehicles to ensure that the Council has a resilient, efficient, and cost-effective fleet.

Executive summary:

This report sets out a proposed rolling 5-year vehicle replacement programme for the whole vehicle fleet. The programme aims to move to a modern fleet of commercial vehicles in a considered way, ensuring that the fleet remains resilient, efficient, and cost effective.

The Council currently has a fleet of 117 vehicles which provide a wide range of services. The Council's fleet is relatively old when compared to other Council fleets. This can present resilience and cost issues as older vehicles are more likely to have mechanical issues and larger amounts of downtime.

Adopting an invest to save approach, the proposed 5-year rolling programme aims to lower the overall age of the fleet. This should help to reduce these costs and ensure service resilience as newer vehicles would be less likely to have major issues.

A programme would also aid the Council with the procurement of vehicles as lead times have seen a significant increase in the past 12 months meaning that forward planning is essential for service resilience.

It is recommended that over the next 5-years a total of 57 vehicles are replaced; the replacements would be 41 used diesel vehicles and 16 electric vehicles. The replacement vehicles have been chosen based on a commercial appraisal of the best financial option. As part of the programme an electrical infrastructure upgrade would need to take place at the Depot costing an estimated £50,000.

The Council's vehicle fleet fuel emissions accounted for 51% of our Scope one and two carbon emissions in 2021/22. In accordance with our Climate Change Action Plan (CCAP), a carbon impact assessment of the proposed vehicle replacement programme has been undertaken.

The outcome of an associated review of the Solent Airport vehicle fleet is to be reported and considered in a separate forthcoming Executive report updating the Solent Airport investment programme.

Recommendation:

It is recommended that the Executive approves:

- (a) the use of a proposed rolling vehicle replacement programme for the next 5-years;
- (b) that the replacement programme, alongside the level of Hydrotreated Vegetable Oil (HVO) use, be updated on a rolling basis each autumn to inform budget setting for the following year and the Medium-Term Financial Strategy;
- (c) an increased general fund capital budget of £584,000 funded from capital reserves, for 2023/24 for the purchase of 11 vehicles (excluding Solent Airport vehicles);
- (d) an increased Housing Revenue Account (HRA) capital budget of £94,200 funded from capital reserves for 2023/24 for the purchase of three vehicles; and
- (e) the installation of upgraded electric vehicle infrastructure at the Broadcut Depot site at an estimated capital cost of £50,000.

Reason:

To ensure the Council is in control of its vehicle expenditure and has a modern fleet of commercial vehicles which remain resilient, efficient, and meet service delivery.

Cost of proposals:

The budget required for vehicle replacements in 2023/24 is £678,200, incorporating £584,000 from the General Fund Budget and £94,200 in the Housing Revenue Account (HRA). The capital cost of the infrastructure upgrade required for the programme is estimated at £50,000.

Appendices: **A: Proposed 5-Year Vehicle Replacement Programme**
B: Carbon Impact Assessment

Background papers: None

Reference papers: None

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Executive Briefing Paper

Date:	15 May 2023
Subject:	Vehicle Replacement Programme
Briefing by:	Director of Planning and Regeneration
Portfolio:	Policy and Resources

INTRODUCTION

1. This report sets out the findings from a review of the Council's Vehicle Replacement Programme (VRP) and presents a proposed 5-year rolling replacement programme for the whole vehicle fleet.

Project Aims

2. Overall, the aim of the project is to create a considered rolling 5-year replacement programme that allows the Council to:
 - Move to a modern fleet of commercial vehicles;
 - Ensure the fleet remains resilient;
 - Adapt to changing service requirements;
 - Lower our maintenance and vehicle hire costs over the longer term;
 - Identify changing infrastructure requirements.

Methodology

3. To ensure that the VRP was considered and well thought out, a number of different aspects have been analysed:
 - Current fleet management;
 - Wider influences e.g. legislation;
 - Fuel and vehicle types;
 - Maintenance considerations;
 - Infrastructure requirements.

What does our fleet look like now?

- The following part of the report outlines the findings from the review of our current approach to fleet management. More detailed analysis can be found in Appendix A.
- We have a diverse fleet:* Our 117-vehicle fleet reflects the wide range of services we provide, ranging from ride on mowers to 26 tonne Refuse Collection Vehicles (RCVs).
- We have one the oldest Council fleets in Hampshire:* We generally only buy used diesel vehicles aged 1-3 years and we run them for longer than most other Councils. For example, many will run an RCV for around 8 years before replacing, whereas we will aim for around 12 years, which is 50% longer.
- Table 1 below shows a comparison of the average age of RCV and van fleets in Hampshire. All the authorities listed below purchase their vehicles outright and run in-house services. As can be seen in Table 1, Council's fleet has the highest average age for both RCVs and vans.

Table 1: Average Age of Hampshire Authority Vehicle Fleets

Local Authority	Average Age (Years)	
	Refuse Collection Vehicles	Light Vehicles (Vans)
Fareham	8	10
Eastleigh	6	6
Test Valley	5	4
New Forest	4	6

- We only replace vehicles when they are too unreliable or expensive to repair:* Replacements only happen when the cost of maintaining the vehicle becomes too expensive or the level of downtime impacts on the resilience of the service.
- Overall fleet running costs have increased significantly in recent years:* The detailed cost analysis found in Appendix A (Table 3) shows that we spent £1,027,550 on running costs in 2019/20. In 2022/23 we have spent £1,504,674 an increase of £477,124 compared to 2019/20. As with many other products, the price of spare parts, fuel, and hire vehicles have risen recently, contributing to higher running costs. This is amplified by the amount of maintenance an older fleet requires.
- Maintenance costs have also risen sharply:* We spent £348,628 on vehicle maintenance in 2019/20, with this figure growing by £181,163 to £529,791 in 2022/23. This is in part caused by increases in the cost of spare parts, which also tend to be more expensive for older vehicles, but is also linked to the greater maintenance requirements of an older fleet.
- Vehicle hire costs are significant and growing:* The hire of vehicles to replace those off the road has gone from £65,757 in 2019/20 to £210,835 in 2022/23. An older fleet has a significant effect on these figures.
- It may be that we sometimes run vehicles longer than financially viable:* Based on the rising maintenance and vehicle hire costs outlined above.

13. *Our level of downtime risks service provision:* Currently just under 10% of the fleet is off the road due to mechanical problems. This puts significant pressure on service delivery and puts waste collections at risk. On several occasions in early 2023, a third of the RCV fleet was off the road. The narrow access waste collections could not be completed on one day as the vehicle broke down and could not be repaired in time to complete the collections scheduled for that day.

Programme Influences

14. Taking into account the increasing costs and significant risks to service provision and resilience our current approach to fleet management presents, it is wise to look at alternative approaches. There are a number of influences such as changing service needs, vehicle technologies and the Council's medium-term financial challenges for any new approach to consider.

Changing Service Needs

15. *The Environment Act 2021 will change waste collection requirements:* Whilst we are still awaiting Government guidance, it is anticipated that we will require separate recycling collections for Containers (glass, cans, plastics) and Fibres (paper and card) from 2025 onwards.
16. At this stage, the use of our current open back RCV fleet for collections is the more likely option. This would avoid purchasing additional vehicles, but further work needs to be completed before a final decision is made.
17. The introduction of weekly food waste collections in 2025/26 will likely require a maximum of seven additional Food Waste vehicles. New Burdens funding is anticipated to cover the capital cost of vehicles. There will be a high level of demand for the vehicles with a likely long lead in needed to procure them in time.
18. *Long term configuration of the Depot needs to be decided:* An Asset Management Plan is in place to support safe and legal operations at the Depot up until 2025. The site configuration will likely need to be revised to accommodate the new food waste collection vehicles in 2025/26. Any considered transition to alternative fuels e.g. electric in the medium term, will also require infrastructure improvements, with more detailed consideration needed about infrastructure for a wider role out.

Vehicle Technology

19. *Sales of new tailpipe vehicles will end:* The Government has set a target of 2030 for the end of sales of smaller new diesel and petrol vehicles e.g. vans and 2035 for larger vehicles such as RCVs. This means that we won't be able to carry on with our approach of buying diesel vehicles over the long term.
20. *Used diesel vehicles are the most financially viable option for most of our fleet at this time.* Diesel fuelled vehicles have the lowest lifetime costs for the majority of vehicle types.
21. *Some electric vehicles are both financially and operationally viable:* The lifetime costs of an electric van are currently similar to those of a used diesel van. It is expected that costs will become comparatively cheaper for electric vans over the next 5 years. Electric vans have a similar load capacity to their diesel alternatives and the low mileage of our van fleet means that they can easily meet our operational needs.

22. *Hydrogen vehicles are not yet financially or operationally viable:* The small number of hydrogen RCVs available are more expensive than their diesel and electric counterparts. There are also challenges in sourcing the fuel, particularly green hydrogen, which has the lowest carbon footprint, but is not publicly available in England. However, this situation may change over the next few years and should be monitored.

Medium Term Financial Strategy

23. *We are facing financial challenges:* The Medium-Term Financial Strategy approved at the 9 January 2023 Executive meeting projected a revenue shortfall over the next four financial years. Vehicle replacements are a significant capital expense and we need to ensure every procurement is both necessary and offers good value.
24. Planning replacements in a considered way over the medium term of 5 years would greatly aid financial planning during this time of challenge. It would also support the Transport Manager in service planning and procurement.

Vehicle Modelling Assumptions

25. The findings and influences identified above have fed into the assumptions used to create the 5-year replacement programme:
- We will continue to mostly buy used (1 – 3 years old) diesel vehicles;
 - We will run our vehicles until they are no longer financially and operationally viable. This is likely to be 1 - 2 years on average less than currently but will depend on the state of each individual vehicle;
 - Where financially and operationally viable we will consider electric vehicles;
 - Long – term vehicle leasing is not currently financially viable;
 - Plant e.g. vehicle attachments and non-registered vehicles are included in costings.

Proposed 5-year Replacement Programme

26. Using the assumptions identified above the 5-year rolling programme proposes the following vehicle replacements:
27. *Refuse Collection Vehicles (RCVs):* Continue with the purchase of used diesels, with eight due to be replaced over the next five years.
28. *Heavy Goods Vehicles (HGVs):* There are two HGVs that are due to be replaced over the next five years. One of the vehicles would be replaced with used diesel and the other with an electric vehicle.
29. *Specialist Vehicles:* There are five Specialist vehicles due to be replaced over the next five years. All of these vehicles would be replaced with used diesel.
30. *Light Vehicles:* There are three 4x4s and twenty-seven vans due to be replaced over the next four years. The 4x4s would be replaced with used diesels. The replacement of vans would be phased with roughly 50% electric and 50% diesel. A phased approach is proposed for the following reasons:
- We don't need to commit to a single fuel type e.g. hydrogen may have a future role;

- It allows us to learn lessons before future phases of procurement;
- It provides time to upskill the Transport Repair Unit (TRU) staff to work on electric vehicles;
- We can spread the cost of additional infrastructure.

31. *Small Vehicles:* Continue with the purchase of used diesels, with ten ride on mowers and two small sweepers due to be replaced over the next five years.
32. *Mayor's Car:* There is currently no need to replace the vehicle as it has not yet reached the end of its useable life. Therefore, there is no financial or operational argument for replacing the vehicle.

Infrastructure required over the next 5 years

33. To accommodate the proposed electric vehicles in the programme, the Depot would need an electrical capacity upgrade and the installation of vehicle chargers in 2023/24. The estimated cost of these measures is currently £50,000.
34. As mentioned, the Depot will need to accommodate a maximum of seven Food Waste vehicles by 2025/26. A decision will need to be taken on the site's configuration, identifying the vehicles that can be accommodated in the limited available space at the Depot.
35. Any further electrical upgrades would require a significant capital investment. Therefore, it is prudent to wait until the Depot's configuration requirements are clear before proceeding. It may be that some vehicles could be stored at other sites in the Borough, but further detailed work needs to take place to support informed decision making.

Financial implications

36. This approach means that with capital investment the operational costs should be minimised. Overall, the programme will see 57 vehicles, 41 of those being used diesel, and 16 electric, purchased at an estimated total cost of £3,807,900 over the next five years.
37. The Council currently has two budgets for vehicle replacement. Both are on a per annum rolling basis. The main budget is £400,000 and is used for the replacement of all vehicles excluding Building Service vans, these are replaced from a £40,000 budget that comes from the Housing Revenue Account (HRA).
38. To accommodate the replacement programme in year 2023/24 the standard vehicle replacement budget would need to increase by £184,000 to £584,000 and the HRA budget would need to be raised by £54,200 to £94,200.
39. This gives an overall vehicle replacement programme budget of £678,200 for the year 2023/24.

Proposed Annual Updates

40. By having annual updates to the programme, the Council can ensure that it has an up to date and dynamic vehicle replacement programme. We will be able to react to changing technologies and vehicle costs. For example, if we trial an alternative fuel RCV e.g. hydrogen or electric, this would be used to inform annual updates. Updates will take

place in the autumn to inform budget setting for the following year and the Medium-Term Financial Strategy.

41. To aid annual updates, officers are looking to improve data gathering by recording the number of vehicles off the road throughout the year, with changes being made to the Council's finance system to enable costs to be attributed to individual vehicles.
42. These measures should quantify the effect of the rolling programme whilst providing more data to aid the Council when making decisions on when vehicles need replacing.

Environmental Considerations

43. The Council's fuel emissions are the biggest contributor to its carbon footprint. In 2021/22, the latest year we have figures for, the 809.3 tCO₂e fuel emissions, accounted for 51% of the combined Scope one and two emissions.
44. The introduction of electric vehicles as part of the proposed vehicle replacement programme would reduce carbon emissions incrementally, by an estimated saving of 40.1 tCO₂e by 2027/28. This equates to a 5% reduction in scope one fuel emissions.
45. Since February 2022, the Council has been using a biofuel called Hydrotreated Vegetable Oil (HVO) in some vehicles. It allows the Council to record 98% less scope one carbon emissions than diesel. The Garden Waste and Small vehicle fleets are currently fuelled by HVO. It is estimated that fuel emissions for 2022/23 will reduce by 184 tCO₂e as a result.
46. Looking forward, Food Waste Collections could cause a large increase in our carbon footprint when they begin in 2025/26. Based on modelling it is estimated that the new collections will emit an additional 170.5 tCO₂e a year if fuelled by diesel. This could be reduced to 2.4 tCO₂e if HVO is used instead of diesel.
47. Like other fuel types, the price of HVO has been volatile over the last 18-months but has remained consistently more expensive than diesel. With this in mind, it is proposed that the use of HVO is reviewed annually as part of the wider rolling programme, in line with the budget setting process for the following financial year.
48. More detailed analysis can be found in the Carbon Impact Assessment set out in Appendix B.

Solent Airport Vehicle Fleet Review

49. Solent Airport has a fleet of five vehicles that are used for airside operations, and an associated review of this fleet has also been undertaken. The outcome of this review will be reported as necessary as part of a separate forthcoming Executive report updating the Solent Airport investment programme, including the details of any proposed capital expenditure and the associated business case.

Conclusion

50. This report sets out a proposed rolling 5-year vehicle replacement programme based on the assumption of only replacing vehicles when they have reached the end of their useable life and be replaced with vehicles that are the best financial option.

Enquiries:

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