Item 2(i)

26th March 2025

Glasgow City Council Internal Audit Section
Committee Summary
NRS - Alloy Application Audit

1 Introduction

1.1 As part of the agreed Internal Audit plan we have carried out a review of the Alloy asset management application used by Neighbourhoods, Regeneration and Sustainability, primarily relating to its use in supporting the collection of bulky waste.

1.2 Alloy has been introduced within bulky waste and is also being rolled out for domestic collections. It is intended that the Alloy system will additionally help to deliver more services including, Roads, Lighting, Streetscene and Parks.

1.3 The introduction of Alloy seeks to replace paper-based and manual processes and includes the rollout of handheld devices to staff and vehicles. It is also intended that Alloy will provide enhanced management information to support the delivery of NRS services.

1.4 The purpose of the audit was to gain assurance that the application controls are operating as designed and are effective in preventing and detecting weaknesses that could adversely impact on the operation of the Alloy application.

1.5 The audit included a review of the key controls in the following areas:

- User acceptance testing;
- Stakeholder engagement;
- Lessons learned during the implementation;
- Software licensing;
- Staff training;
- User access management;
- Exception reports and audit trails;
- Inputs and outputs to/from the application;
- Software updates and security patching;
- Data storage arrangements, and
- Business continuity arrangements.

2 Audit Opinion

2.1 Based on the audit work carried out a reasonable level of assurance can be placed upon the control environment. The audit has identified some scope for improvement in the existing arrangements and three recommendations which management should address.

3 Main Findings

3.1 The Alloy application has been deployed using a Software as a Service model (SaaS). It is accessed using an internet browser or mobile app and is supported by the vendor, Causeway, including patching and backups.

3.2 User acceptance testing (UAT) was completed before the application was rolled out for use by the Council's Bulky Waste service. A stakeholder analysis and communication plan were developed and lessons learned sessions have been undertaken.

3.3 Users and administrators are adequately supported through system manuals and procedures. While the system does not produce exception reports, satisfactory audit trails are maintained by the system and these can be reviewed on a case by case basis.

3.4 However, our audit testing identified some areas where the internal controls could be improved. Shared accounts are used by operatives to access the system. This allows access to the system which cannot be directly tracked back to an individual user. These accounts provide access to limited data including address information, collection dates and pictures of the items to be collected. However, the accounts are also split by team and as such it is likely the user on a route on a specific day could be identified, if required.

3.5 Some other issues were identified during the audit relating to user access and these have been shared with the Service.

3.6 While a business continuity plan has been developed for Bulky Waste, this assumes access to the data within Alloy and does not consider an outage of the Granicus feeder system (which allocates jobs to the Alloy system and provides feedback to members of the public).

3.7 Discussions are still taking place regarding the archiving of data within the Alloy system and currently no data is deleted from the system.

3.8 An action plan is provided at section four outlining our observations, risks and recommendations. We have made three recommendations for improvement. The priority of each recommendation is:

Priority	Definition	Total
High	Key controls absent, not being operated as designed or could be improved. Urgent attention required.	0
Medium	Less critically important controls absent, not being operated as designed or could be improved.	2
Low	Lower level controls absent, not being operated as designed or could be improved.	1
Service Improvement	Opportunities for business improvement and/or efficiencies have been identified.	0

3.9 The audit has been undertaken in accordance with the Public Sector Internal Audit Standards.

3.10 We would like to thank officers involved in this audit for their cooperation and assistance.

3.11 It is recommended that the Head of Audit and Inspection submits a further report to Committee on the implementation of the actions contained in the attached Action Plan.

4 Action Plan

No.	Observation and Risk	Recommendation	Priority	Management Response
Key Control: Appropriate user access and permissions are in place and regularly reviewed to ensure they remain appropriate**.**				
1	While only limited data is held within the Alloy application, as used to deliver the Council's bulky waste service, we noted that shared accounts are used by operatives to access the system. This means that system activity cannot be directly/easily tracked back to an individual user. Additional issues relating to user access were identified during the audit and have been shared with the Service. This increases the risk of potential unauthorised access, licensing issues, and limited ability to track actions in the system back to individuals.	NRS management should consider if the current arrangements regarding shared accounts are appropriate. If the decision is made to tolerate the risk, this should be formally documented. NRS management should also address the additional user access issues identified during the audit.	**Medium**	**Response:** Accepted Risks around shared accounts were considered with CGI and SIT and then with the internal NRS Project Assurance Group. NRS decided to tolerate the risk of using shared accounts for the Alloy system. Recommendation in relation to user access controls is accepted. **Officer Responsible for Implementation:** Transformation Business Programme Manager **Timescales for Implementation:** 30 June 2025

No.	Observation and Risk	Recommendation	Priority	Management Response
Key Control: Appropriate Business Continuity arrangements are in place.				
2	From a review of the Bulky Wate Business Continuity Plan (BCP) we identified that this assumes that access to the data within Alloy and the Granicus feeder system will be available during an outage or incident. We have been advised that while testing of the business continuity plan was completed as part of the setup, this has not been undertaken subsequently. NRS have not obtained assurances over the backup and disaster recovery arrangements in place for the Alloy system. Without an updated BCP in place, there is an increased risk to the organisation's ability to effectively manage prolonged disruptions without access to the data normally accessed by the Bulky Waste teams through the Alloy application.	NRS management should review the current BCP in place to ensure that staff have appropriate arrangements to follow in the event of an outage that prevents access to the data in Alloy or updates from the Granicus system. Information regarding the backup and disaster recovery arrangements by the supplier should be obtained by NRS. The BCP should be tested annually and a lessons learned exercise undertaken to update the BCP as necessary.	**Medium**	**Response:** Accepted The BCP will be reviewed to take into account end to end system outages. A schedule of annual BCP testing will be developed. **Officer Responsible for Implementation:** Group Manager - Business Operations & Waste Disposal **Timescales for Implementation:** 30 June 2025

No.	Observation and Risk	Recommendation	Priority	Management Response
Key Control: Data is securely stored and only retained for the appropriate period.				
3	Whilst limited data is not held within the Alloy system, discussions are still taking place regarding the archiving and deletion of data of held within the Alloy system. If the data within the Alloy system is not archived and deleted as appropriate there is an increased risk that this could affect system performance and backup and recovery arrangements.	NRS management should agree the arrangements for archiving and deleting data held within the Alloy system and ensure that these are implemented.	**Low**	**Response:** Accepted A workflow to archive completed bulk waste projects and jobs will be implemented. **Officer Responsible for Implementation:** Transformation Business Programme Manager **Timescales for Implementation:** 30 June 2025