DSD/NIHE Asset Catalogue Report 2014-15

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DSD/NIHE

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EXECUTIVE SUMMARY

Introduction

The brief for client requirement 3 (as set out in the main brief for the Department for Social Development (DSD) Asset Commission 2014/15) was to work alongside DSD and Northern Ireland Housing Executive (NIHE) staff to execute a quality review on a catalogue (list) of property assets provided by NIHE.

Aims

The aims for the review were fourfold:

1   To identify a complete and accurate list of all assets owned by NIHE.

2   To ensure that the data used for the other elements of the asset commission is as accurate as possible.

3   To assist NIHE in improving asset data quality and integrity for business as usual purposes.

4   To ensure that the asset data used by the SHRP is as accurate as possible.

Methodology

A structured methodology was developed and agreed with the support of DSD and NIHE staff. This is captured in a method statement attached at Appendix One.

Findings

NIHE's main Housing Management System (HMS) holds information on 109,979 NIHE owned assets, a review of this data indicates the following key findings.

NIHE operates a housing management system used by many modern social landlords which contains a large number of housing datasets. Similarly, NIHE operates electronic databases for capturing and managing asbestos information and planned works. Much of this information appears complete and consistent however a notable number of opportunities for improvement, within and between systems, have been identified:

- Data on demolitions and disposals, and on units pending demolition and disposal, is not consistently recorded in the same field on HMS. This makes it difficult to clearly identify assets that are no longer in NIHE ownership and means that this information does not necessarily feed through to other systems.

- Gaps and anomalies were identified in the way in which property tenure is described. This includes a large number of unknown or unspecified tenures, tenure description is not used to define leasehold properties and a small number of tenure descriptions which imply tenants of other landlords. The majority of NIHE tenants are described incorrectly as 'introductory tenants' rather than 'secure'.

- It is difficult to clearly identify travellers sites in NIHE ownership through HMS due to lack of consistency in tenure descriptions and status on HMS.

- It is also difficult to clearly identify numbers of sold leasehold properties for which NIHE retains a freehold interest. Data used by finance to set leasehold service charges contains different stock numbers to data held on HMS (which we understand to include all leasehold units with active service charge accounts).

- The numbers of NIHE owned garages has varied through the different HMS extracts provided as part of this review due to the difficulty of identifying asset ownership, tenure and demolition status. This status does not appear to be consistently recorded on other systems for maintenance and asbestos management purposes.

- There are minor mismatches of the commercial property portfolio between manual records held by staff for operational purposes, HMS and other systems.

- HMS does not fully identify units let as community or statutory lettings.

- The process of migrating data to HMS involved the creation of property record references which are not "unique" reference numbers between different systems. This means that there are property reference numbers which are duplicated between legacy and current systems, but which point to different properties. There is a Unique Property Reference Number (UPRN) on HMS but this does not appear to be used on other systems.

- Individual flats have been matched to their respective blocks using the property referencing system for blocks, matched to the block sequencing number for individual units. However, the block referencing system is not fully in use or consistently used.

- HMS does not clearly show a record of all NIHE owned landlord accommodation. This data is recorded on separate spreadsheets held for operational purposes which contains property references from the ePIMs system. While some of the individual units may be on HMS, they are not consistently recorded as office accommodation, and not necessarily recorded as being in NIHE ownership.

A comparison of the data held on the HMS and the Schemes Asset Management System (SAMS) and Asbestos Information Management System (AIMS) has revealed some material mismatches between property numbers, and property status (e.g. in particular whether properties that had been demolished, or sold leasehold, were accurately identified as such on all systems).

There is a further mismatch between HMS and AIMS with 9,260 property records of NIHE owned assets on HMS that cannot be matched to the AIMS extract provided. In general it is not clear why these properties are not on AIMS and whether this is due to an asbestos survey not having been carried out, or whether it is because an asbestos survey has been carried out and no asbestos identified.

Conclusions

In conclusion, NIHE does not have (at this moment in time) a single source detailing a complete and accurate list of all its assets. Although, based on reviewing and triangulating the systems, we have prepared a single asset catalogue with data held for housing, asset and asbestos management which will assist NIHE in rectifying this issue.

Comparing data between different NIHE systems for housing, asset and asbestos management has highlighted a degree of data mismatch, gaps and anomalies both within systems and between systems. However the level of data issues identified is not inconsistent with data reviews we have carried out in other large landlords.

The issues can be summarised into four key themes including:

- **Data management** – an opportunity has been identified for NIHE to improve its data management protocols. As things currently stand NIHE finds it difficult to quickly and easily identify the assets which it owns. The various systems used to manage the Landlord's assets could benefit from consistent referencing between HMS and other major systems.

- **Leasehold properties** – an opportunity exists for NIHE to improve the information it holds on leasehold properties, including the identification of all leasehold sales on HMS and reconciliation with data held for service charge budgeting.

- **Referencing systems** – an opportunity has been identified for NIHE to align the referencing system in HMS to other sub-systems and legacy systems. This will reduce complexity and remove the risk of confusion between datasets and systems.

- **Data consistency and completeness** – this exercise has highlighted a number of data inconsistencies within and between landlord systems plus a number of data sets which are not complete. NIHE should seek to achieve improved levels of data consistency and completeness in the interest of improving operational efficiency and reducing operational risk.

Key messages arising from the review can be summarised as:

- There's no simple way of identifying all NIHE owned properties – with a need to research data in several different fields to confirm status and a particular lack of clarity on properties sold on a leasehold basis. It is not possible at this stage to arrive at a definitive list of NIHE owned properties.

- The three main systems do not completely map across to each other - which means there is a risk that NIHE is unable to accurately identify management and repairing liabilities.

- The transfer of all data from legacy systems is not yet complete and therefore staff continue to use legacy data for operational purposes. There is a duplication of property references between the legacy and current systems that has the potential to create confusion and delays.

From a day-to-day business as usual perspective, it is a fundamental requirement of any landlord function to have a single and easily accessible way of identifying all its assets and ensuring data on those assets is held consistently on all systems used for operational purposes.

From the perspective of SHRP, in the event that the SHRP programme delivers a political mandate for change and there is agreement to split the functions of NIHE between landlord and regional, and if any alternative landlords are proposed, an accurate asset catalogue will be fundamental and essential to the due diligence and transition planning process.

Recommendations

A series of practical recommendations are presented in Section 6 of this report which can be turned into an action plan by NIHE. These recommendations have been written and presented so that they can be addressed as part of an ongoing data improvement project to support business as usual improvement and risk management and any future change proposed under the SHRP.

1.0 INTRODUCTION

The brief for client requirement 3 (as set out in the main brief for the DSD Asset Commission 2014/15) was to work alongside DSD and NIHE staff to execute a quality review on a catalogue (list) of property assets provided by NIHE for completeness and accuracy.

A method statement was agreed with the client, through the Assets Workstream 2 project team (AWS2). This is attached at Appendix One.

This paper sets out the findings of that review and provides a log of issues to be addressed as part of an ongoing day-to-day data improvement project to support business as usual improvement and any future change proposed under the Social Housing Reform Project (SHRP).

1.1   Aims, Objectives and Outputs

1.1.1   The aims for the review were fourfold:

- To identify a complete and accurate list of all assets owned by NIHE.

- To ensure that the date used for the other elements of the asset commission is as accurate as possible.

- To assist NIHE in improving asset data quality and integrity for business as usual purposes.

- To ensure that the asset data used by the SHRP is as accurate as possible.

1.1.2   The objectives of the review are set out in the brief for the SHRP Assets Commission as:

- Provide comfort that the asset list(s) are complete and accurate.

- Provide comfort that all assets on the list carry a Unique Property Reference Number (UPRN or similar).

- Provide confirmation that the UPRN (or similar) appearing on the asset catalogue triangulates back accurately to ALL Information System and Technology (IS&T) systems operated by NIHE (where appropriate) associated with managing assets.

The outputs consist of:

- An electronic copy of the validated and quality assured Asset Catalogue which has been placed in the data room set up for the project.

- This report which sets out the issues identified during the review and recommendations for future data improvement.

1.2 Scope

1.2.1 The brief defines assets to be included in the catalogue as:

"all assets associated with the landlord function including residential, shops, hostels, leases, travellers sites, offices, depots and stores and assets held for sale."

1.2.2 Play areas and open space were considered out of scope. The method statement goes on to confirm that the Housing Management System (HMS) extract supplied by NIHE would form the foundation of the asset catalogue.

1.2.3   The following systems were identified as relevant to the exercise:

System Name	Functionality	Currently in use (Y/N)
Orchard Housing Management System (HMS)	Responsive repairs module and voids module	Yes – currently in use
Schemes Asset Management System (SAMS)	Planned works 'scheme management' with some property attribute information	Yes – currently in use
Management Information Systems (MIS)	Old version of SAMS	Yes – currently in use / for reference purposes mainly
PRAWL	Old version of HMS	Yes – currently in use / for reference purposes mainly
System Name	Functionality	Currently in use (Y/N)
Asbestos Information Management Systems (AIMS)	Managing asbestos data / Internet contractor access	Yes – currently in use
Land Terrier System	Catalogue of all current and historic NIHE owned land	Yes – currently in use
PROPCHAR	Datamart / warehouse for PRAWL and MIS data	Yes – currently in use / for reference purposes mainly
ePIMS	SIB maintained public sector asset database which holds data on all office accommodation in the NI public sector	Yes – currently in use

1.3   Housing Accessibility Register

1.3.1   The data to be gathered as part of the survey work (Client Requirement 4) will support NIHE in developing a housing accessibility register. These records will then be flagged on the master asset catalogue which has a field that logs all other systems where data on the same asset is held.

1.4　General Observations

1.4.1　The main Housing Management System (HMS) is used by both landlord and regional functions and therefore includes assets owned by NIHE and other landlords. Through the process of requesting extracts for the purpose of this review, it was identified that there is no single field on HMS that enables easy identification of whether an asset is owned by NIHE or other organisations.

1.4.2　The property reference field has been used to match data between systems. While HMS includes a UPRN, this is not used on other systems.

> **Recommendation 1.** It is recommended that a single classification field is used in HMS to identify assets in NIHE ownership. This will enable NIHE to easily identify data relevant to the day to day landlord activity.

2.0 METHODOLOGY

2.1 Summary of Methodology

2.1.1 The methodology employed involved a series of activities which can be summarised as follows (full details are set out in Appendix One):

Activity 1: Establishing a commonly accepted definition of assets for inclusion in the asset catalogue.

Activity 2: Scope the data tables and systems to be included in the quality assurance process.

Activity 3: Establish and confirm NIHE's current data management protocols.

Activity 4: Review data quality within the Housing Management System (HMS).

Activity 5: Triangulation and alignment of data between HMS and other systems.

Activity 6: Prepare and provide an asset catalogue.

Activity 7: Prepare and provide an overarching report summarising findings and recommendations.

2.1.2 A list of data provided to Savills for the purposes of this review is set out at appendix 2.

2.2   Activity 1: Defining assets for inclusion in the asset catalogue

2.2.1   This activity was reasonably straightforward and centred on structured dialogue involving NIHE, DSD and Social Housing Reform Project (SHRP) staff. All contributors agreed that the catalogue will include all assets associated with the landlord function including residential, shops, hostels, leases, travellers sites, offices, depots and stores and assets held for sale. Play areas were confirmed as out of scope, as none are owned by NIHE. Open space within estates are largely out of scope due to ongoing quality assurance process being carried out by NIHE on the land records.

2.3   Activity 2: Scope the data tables and systems to be included in the assurance process

2.2.2   Through consultation with NIHE Information Technology (IT) staff a list of core systems which are used by the Landlord function within NIHE on a day-to-day basis was agreed for inclusion in the review process. This activity highlighted some recent significant system changes and data transition projects which have been undertaken by NIHE in the past. For example, the data in the old housing management system (PRAWL) has been migrated to the Orchard Housing Management System (HMS) and the data from the old programme/scheme management information system (MIS) has been migrated to the Schemes Asset Management System (SAMS).

2.2.3   As part of this activity NIHE prepared extracts from all major systems which included all assets owned by NIHE. In practice it was necessary to obtain three versions of the extracts from HMS due to anomalies and gaps identified in the first two extracts. This activity has highlighted the difficulty NIHE has in readily identifying those assets and liabilities solely related to its Landlord function. It also highlights the fact that the quality of this review process is wholly dependant on the quality of extracts that NIHE are able to prepare from system data and on the data presented at a given point in time.

2.4 Activity 3: Establish and confirm NIHE's current data management protocols

2.4.1 It is normal practice for Landlords to have well defined and commonly understood data management protocols for core systems such as housing management systems, asset management systems and asbestos management systems. It is common practice for Landlords to have processes and procedures in place which clearly identify who, how and when data will be managed and updated. Likewise it is normal practice to have 'master systems' and 'slave systems' which are clearly defined and linked through common referencing systems or common coding systems. This helps to reduce the amount of time staff spend running numerous reports and cross referencing systems to ensure data quality.

2.4.2 Based on our review, we would suggest that the current data management protocols within NIHE are not straightforward. As such, establishing clear and accountable data management protocols represents an opportunity for improvement and increased efficiency on the part of NIHE, reducing the time and effort needed to sort, process and manipulate data.

2.4.3 This activity also established that the main HMS is used by both landlord and regional functions and therefore includes assets owned by NIHE and other landlords, presumably activity relating to NIHE's regional role. Through the process of requesting extracts for the purpose of this activity, it was identified that there is no single field on HMS that enables easy confirmation as to whether or not an asset is owned by NIHE or another organisations. Going forward it will be important for business as usual efficiency and to support any changes arising from the SHRP programme to ensure that there is clear differentiation between data held for the landlord function and data held for the regional function.

2.5 Activity 4: Review data quality within the Housing Management System (HMS)

2.5.1 The base data is sourced from the HMS extract dated 18th August 2014 provided by NIHE. Subsequent extracts from HMS were provided by NIHE on 24/11/2014 and 2/12/2014 in response to anomalies and gaps identified in the initial extract.

2.5.2   The data held within HMS was reviewed in consultation with NIHE staff.

2.6   Activity 5: Triangulation and alignment of data between HMS and other systems

2.6.1   HMS data was then triangulated against data held on other systems including:

- SAMS - schemes asset management system including legacy data on archetypes and property attributes.
- AIMS - Asbestos Information Management System.
- Various data extracts provided from most of these main systems.

2.6.2   Where necessary the review has also looked back at legacy data held on PROPCHAR - a business intelligence datamart/warehouse combining data from legacy operational systems including PRAWL, Repairs and MIS. We understand that PROPCHAR contains data that is approximately 18 months old. We have been provided with a method statement on how legacy data was migrated across to current systems. We understand that data on sold properties was not transferred from legacy systems except where there was a live service charge account.

2.6.3   Data has also been cross referenced with feedback from other workstreams (e.g. survey results and rent data review).

2.6.4   The UPRN referencing system includes HMS reference, UPRN and various others. A match table has been supplied containing PRAWL property references and their corresponding HMS property references. HMS referencing has been used on the base data for the asset catalogue. The UPRN reference on HMS does not appear on any other system, therefore property references have been used to match data between systems.

2.6.5   Data on sold properties with active service charge accounts had been filtered out of the first HMS extract provided for this review. A subsequent list of those properties (identified by the HMS field "Right To Buy code" showing "8") was supplied dated 15/10/2014.

2.6.6   Data on sold properties without an active service charge account was not migrated from legacy systems. However we understand that during 1979 and 1985 properties were sold on a tenure that provided a leasehold interest of 9,999 years, with NIHE retaining the freehold interest. While these properties do not have an active service charge account we have sought to identify them from PROPCHAR legacy data in order to ensure that the catalogue includes all property interests held by NIHE.

2.6.7   Map files with land terrier, grounds maintenance and NIHE owned land have also been received. These are subject to an ongoing quality assurance process by NIHE which once complete should enable NIHE to have a robust understanding of the land holding associated with the property assets.

2.6.8   During the course of the review it was identified that the HMS extract provided for the review dated 18/08/2014 did not represent a complete list of NIHE assets. Two major exclusions were:

- The extract did not accurately reflect the number of properties with active service charge account. Our analysis identified, and NIHE have confirmed, that the Right to Buy "code 8" filter is not reliable and does not result in a full list of leasehold properties with active service charge account.

- The extract did not provide any information on blocks or "shell" properties that were identified through triangulation with other systems.

2.6.9   As a result of the identification of this omission, we have been provided with two additional extracts. One containing all assets on HMS (156,303 records) and an extract filtered show NIHE owned assets only (109,979 records). This has been analysed to identify gaps and anomalies in the earlier analysis. NIHE ownership was identified by using the following rules:

- Select all properties with [Department Code] = 'HSG' – Housing Executive

- Exclude properties where [Right To Buy Code] = '0' – Private

- Exclude properties where [Right To Buy Code] = '2' – Sold (Freehold)

- Exclude properties where [Right To Buy Code] = 'D' – Disposed

- Exclude properties where [Right To Buy Code] = 'I' – Sold (Interim)

- Exclude properties where [Right To Buy Code] = 'Z' – Demolished

- Exclude properties where [Right To Buy Code] is blank or null and [Property Type Code] does not equal 'BLOC'

2.6.10   As part of the process of sample validation of the asset catalogue we have tried to cross reference with Geographic Information System (GIS) data held on the Land Terrier and Grounds Maintenance systems. The purpose of this cross reference was to explore whether folio number and details of any restrictions on title could be exported from land records (map files) to the asset catalogue. Data will also be cross referenced between the survey and the asset catalogue on a random spot check basis within a structured approach.

2.7   Activity 6: Prepare and provide an asset catalogue

2.7.1   In accordance with the brief we have now provided an asset catalogue which has been uploaded onto the SHRP data room and will also be made available to NIHE and DSD.

2.7.2   This contains a list of all properties on HMS (based on the extracts provided to us), and shows which properties are identified by NIHE as being owned and held for the purposes of the landlord function. Data on property attributes, status and tenure is included. The catalogue then shows whether data on each property is also held on SAMs and AIMS and other spreadsheets used for operational purposes. The catalogue contains separate tabs setting

out gaps and anomalies that can be used as a data improvement log. The catalogue can be used as a baseline to confirm the inconsistencies, gaps and anomalies that exist at a point in time, and enable easy identification of where data improvement is required. Once the data improvement activities are completed, the catalogue could be checked against HMS to demonstrate improvement.

2.7.3   The catalogue can also be used to support a data improvement plan that will improve efficiency by reducing staff time taken to manually correct records used for operational planning, and improve the confidence in information to support decision making. It can also be used to support SHRP activity by ensuring that data is fit for purpose for modelling to inform strategic decision making and help to manage risk during the due diligence process of preparing data for transfer to any future public or private sector landlord.

2.7.4   The master asset catalogue will be updated one final time before the end of the asset commission to ensure the information flowing from Client Requirement 4 relating to an Affordable Housing Register is captured. At the same time, any actions to resolve data anomalies on rents flowing from Client Requirement 6 will be carried forward to the final version of the asset catalogue and information from the land terrier (currently out of scope) will be brought in where possible.

3.0 REVIEW OF HMS DATA QUALITY

3.1   Source Data

3.1.1   The first task was to prepare an extract from HMS of all NIHE owned assets. An initial HMS extract was provided dated 18/08/2014 which contained 95,669 records.   A revised HMS extract containing 156,303 records was provided on 24/11/2014 which contained details of all assets on the system. A subsequent extract with only 109,979 records of NIHE owned assets was provided on 2/12/2014. This includes tenanted and leasehold dwellings and non dwelling assets (e.g. blocks, garages, commercial and travellers sites).

3.2   Dwellings No Longer In NIHE Ownership

3.1.2   We were advised by NIHE that the 18/08/2014 extract provided had been filtered to exclude stock that had been sold, demolished or otherwise disposed of. The review identified that the filters had not excluded 63 dwellings on the list marked as disposed or demolished in either the "Righttobuydesc" field or the "TenancyVoidCode" field.   These properties have been identified correctly as no longer NIHE owned on the revised HMS extract issued 24/11/2014. We believe the original error occurred due to an inconsistency in how demolitions and disposals are recorded on HMS. There remain 101 properties on the active NIHE list recorded as having been demolished in the "demolished date" field, all are garages or commercial. There remain 12 properties recorded as having been disposed in the "Disposal Date" field, all are blocks.

3.1.3   The full HMS data extract (e.g. including NIHE owned and non NIHE owned data) includes 4,000 records of properties that have either been demolished or disposed (based on there being a date entered in the "Demolished date" field or "Disposed date" field in HMS. The majority of these continue to be recorded on SAMs and 1,418 appear on AIMS. This extract includes 16,805 properties that have been sold under the Right to Buy (based on there being

a date entered in the "Right to Buy date" field on HMS). Of these 10,655 are recorded as freehold sales although data on some of these assets is still held on SAMS and AIMS.

3.1.4   We have been provided with procedures for the treatment of demolished properties ("HRAN ES 18 12 Demolitions Process for NIHE Property" and "Demolition of NIHE properties" dated Nov 2013).

> **Recommendation 2.** It is recommend that the procedures for the treatment of demolished properties are reviewed to ensure consistency in which HMS field is updated to show demolitions, and to ensure data feeds through to correct fields in SAMS and AIMS.

3.1.5   There are a further 431 property records on the NIHE owned assets list recorded as pending sale, demolition or Housing Association (HA) transfer in the HMS field labelled "voiddesc". Their "pending" status is not consistently shown on AIMS and cannot be identified from the SAMS extract provided.

> **Recommendation 3.** It is recommend that the records recorded as pending sale, demolition or HA transfer in the "voiddesc" field are reviewed to check current status and a process is established to ensure pending status is recorded on SAMS and AIMS.

3.1.6   In summary the review identified that demolitions and disposals are not consistently recorded in the same field on HMS. This makes it difficult to clearly identify assets that are no longer in NIHE ownership and means that and this information does not necessarily feed through to other systems.   There are 431 assets with a status of pending demolition and disposal and while there are procedures in place to require a monthly review of all voids, it is not clear from the system when the status was last reviewed, and how it feeds through to other systems in a consistent and timely manner.

3.3   Tenure Classification

3.3.1   The extract provided includes the following tenure classifications:

Tenure description	Count of Property Reference Number
? UNKNOWN ? [1]	8,251
Community Lettings	3
Housing Assoc tenant	8
Local Authority	6
NIHE Commercial	420
NIHE Garage	7,492
NIHE Hostel Resident	183
NIHE Tenant (Introd)	87,663
NIHE Tenant (Secure)	14
NIHE-Housing Maintenance	1
NIHE-Office Accommodation	2
NIHE-Warden Residence	6
Other[2]	5,790
Owner-Occupier	31
Private Tenant	22
Traveller	34
Void	32
(blank)	21
Grand Total	109,979

3.3.2   Issues to note from this breakdown include:

- A large number of tenants incorrectly labelled as introductory rather than secure.

- A large number of records with "unknown or "other" tenure, and a small number with this field blank. All properties with an "unknown" tenure are blocks.   The 5,790

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[1] All records with "unknown" tenure are blocks

[2] These records are a mix of property type including leaseholders

properties with tenure of "other" are a mixture of property types and include a large number of leaseholders.

- No tenure description that clearly describes leasehold properties.
- A small number of properties with tenure of Local Authority and Housing Association or private tenant.
- 32 properties with a tenure of void.

3.3.3   This highlights a data improvement action required to ensure tenure records are clear, complete and consistent and support the requirements of the business.

> **Recommendation 4.** It is recommended that the tenure classification is reviewed to ensure correct and complete tenancy classification to support the requirements.

3.4   Travellers' Sites

3.4.1   The HMS extract of NIHE owned assets includes records of 34 sites across 3 pitches.   This compares with 7 sites detailed on the contact address list provided for the stock condition survey.   The contact address list indicates that the remaining 4 sites are either in partial ownership/control of NIHE (Greenbrae/Strabane and Ballyarnett) or closed for refurbishment (Daisyfield Park and Glen Road Heights).   The full HMS extract (including non NIHE owned assets) includes details of all these sites except Grenbrae, but they are not labelled as in NIHE ownership.   Total numbers of travellers sites on HMS differ depending on whether the tenure description or property description is used.

3.4.2   All sites are recorded on SAMS.   The Legahory Close site, and part of the Stewartstown Road site are recorded on AIMS.

3.4.3   In summary it is difficult to clearly identify travellers sites in NIHE ownership due to lack of consistency in tenure descriptions and status.

> **Recommendation 5.** It is recommended that data on all travellers sites in NIHE ownership is recorded consistently on HMS and, where there is an NIHE repairing liability, also on SAMs and AIMS.

3.5   Leaseholders

3.5.1   During the course of the review we were unable to clearly identify leasehold properties on the HMS system.

3.5.2   Originally a list was prepared showing those units excluded from the earlier HMS extract due to "Code 8 Right to Buy status = sold (leasehold)". This only showed 886 properties.

3.5.3   A spreadsheet was provided with all properties with an active service charge account used by finance for the purpose of budget setting showing 5,812 properties.

3.5.4   The revised extract of NIHE owned stock shows 6,025 properties with a Right to Buy status of "Sold (Leasehold)". 289 of these have a tenure of introductory tenant. 8 of these have a property type of bungalow or house although these property types are normally sold freehold. All units are on SAMS, 53 units are on AIMS, listed as either tenanted or void.

3.5.5   It should be noted that when analysing the same data field on the full HMS extract (e.g. NIHE and non NIHE owned stock) 6,049 properties are labelled as "Sold (Leasehold)". This illustrates the fact that the filters applied to differentiate between NIHE or non NIHE owned stock are not consistently picking up all NIHE assets. Furthermore there are 101 properties on the full HMS extract where the Right to Buy description is recorded as disposed or cannot be bought and therefore cannot be used to identify whether the Right to Buy was a freehold or leasehold disposal.

3.5.6   Data on sold properties without an active service charge account, but where NIHE may retain a freehold interest in the properties has been sourced by reference back to legacy PROPCHAR data.

3.5.7   A search was made for all sales between 1979 and 1985. No records of sales before 1982 were found on the legacy data provided and we understand these are only available in hard copy archives. A total of 89 properties were identified as sold between 1982 and 1985.

> **Recommendation 6.** It is recommended that:
>
> - A consistent protocol is established to identify leasehold properties with an active service charge account on HMS and that this status is recorded consistently on other systems and matched to data used by finance to set leasehold service charges.
>
> - Properties without an active service charge account, but sold on long leases are included on HMS to ensure the legacy freehold interest is recorded on live systems and any ongoing freehold liabilities can be identified.

3.6   Garages

3.6.1   The HMS extract includes 7,549 records of property owned by NIHE with a property type description of garage. 7,492 of these have a tenure description of "NIHE garage", with the remaining classified as "other". 4 are recorded as sold (leasehold) in the "Righttobuydesc" field. 94 are recorded as demolished in the "demolished date" field. If we exclude those with "other" tenure, leasehold sales and those with a demolition date we are left with 7,394 garages recorded as NIHE tenanted.

3.6.2   This compares with 7,404 on the original extract prepared of which we were subsequently advised 10 had been disposed leaving 7,394.

3.6.3   All 7,549 records appear on SAMS although none are classed as garage in the "dwelling type" field. 7,402 records appear on AIMS, the majority with a record of "garage" in the "fldusage" field, although two are recorded as "store" and "domestic".

3.6.4   In summary this highlights the difficulty of clearly identifying NIHE owned assets, with a need to research data in several different fields to confirm status.

3.7   Commercial Properties

3.7.1   The original HMS extract included 422 commercial properties. Separately we had been provided with a list of 402 commercial properties on a separate spreadsheet "SHRP - Stand Alone Commercial Properties (not under flats) AK 23102014". The two extracts did not include a common referencing system. NIHE manually matched the two files and have subsequently advised that there are 407 commercial properties to be included in the asset catalogue although 4 of these units do not appear on the HMS extract as NIHE owned assets.

3.7.2   The revised HMS extract contains 420 records with a property type and tenure description of commercial/NIHE commercial.

3.7.3   All these properties appear on SAMS although none show a "dwelling type" of commercial. There are 411 of these properties on AIMS all with a status in the "fldusage" field of commercial.

3.7.4   In summary there are minor mismatches of the commercial property portfolio between manual records held by staff for operational purposes, HMS and other systems.

> **Recommendation 7.** It is recommended that all records of commercial properties held by staff for operational purposes contain a common HMS referencing system and that the HMS list is reviewed to reflect an up to date position.

3.8 Community Lettings and Statutory Authority Lettings

3.8.1   We have separately been provided a spreadsheet with details of 282 community lettings and 48 statutory authority (Stat Authority) lettings.

3.8.2   These were identified on the earlier HMS extract provided, but not marked as community or statutory authority lettings.

3.8.3   The revised HMS extract provided shows only 3 units with a tenure classification of community lettings.

3.8.3   In summary HMS does not fully identify units let as community or statutory lettings.

> **Recommendation 8.** It is recommended that community and statutory lettings are identified on HMS.

3.9 HMS Property References

3.9.1   We have compared HMS property references with legacy property references from PROPCHAR. This comparison is shown on "HMS PROPCHAR MATCHED.xls".

3.9.2   We have been provided with a table of matched references "property references.xls". This shows 155,419 HMS property references, alongside their equivalent legacy reference used on PROPHAR. This has identified that new references created for HMS were in some cases duplicates of references on PROPCHAR that relate to different properties. There are a total of 82,092 HMS references which are also found on PROPCHAR. Approximately 50% of these show an address on both systems but in the majority of cases the reference numbers point to different addresses on different system.

3.9.3   This represents a business risk as PROPCHAR continues to be used as a source of data extracts for example where staff are seeking data that they do not believe has been migrated across to HMS (e.g. non traditional property types have not yet been migrated to SAMs).

3.9.4   There is a UPRN field on HMS which includes pointer references which we understand are unique across both legacy and current systems.   However this field cannot be cross referenced with the extracts we have received from SAMS and AIMS.

3.9.5   In summary the process of migrating data to HMS involved the creation of property records which are not "unique" reference numbers.   A unique property reference number field does exist on HMS but not on other systems

> **Recommendation 9.** It is recommended that the use of UPRN is explored as an alternative to property reference numbers which are not "unique" between legacy and current systems.

> **Recommendation 10.** It is recommended that the use of legacy PROPCHAR property references is discontinued once the data migration process is complete.   Clear guidance should be issued to staff to manage the risk of duplicate reference numbers in the meantime by identifying clearly whether HMS or PROPCHAR reference numbers are used.

3.10   Information on Property Type

3.10.1 HMS includes three separate definitions of property type:

- Dwelling type
- Property type
- Property class (excluded from later extracts of HMS provided)

3.10.2 We have carried out a cross tabulation between the different types.   Sample results are set out on the "NIHE stock PIVOTS" tab of the asset catalogue.   This shows minor discrepancies. Whilst generally there is consistency between the three different property classifications there are some key inconsistencies including:

- There is no property class of bungalow and therefore the first extract from HMS showed 18,150 dwellings with a property type of "Bungalow" have a property class of "House". This field was blank on the subsequent extracts provided.

- 2 records with a dwelling type of "house" have a property type of "land".

- 826 records with a property type of "Maisonette" have a dwelling type "House".

- 15 records with a property of "Block" have a dwelling type of either "Bung" or "House".

3.10.3 There are 612 records with unknown dwelling type and 92 with a blank property type but only 4 records with no indication of either.

3.10.4 Data management protocols will need to clearly communication the rationale for the different property description fields and ensure data is consistently completed between the fields.

3.10.5 There is a general consistency between property descriptions between HMS and SAMS although a greater inconsistency between property type descriptions on HMS and on AIMS.

> **Recommendation 11.** It is recommended that inconsistencies between the different property descriptions are removed and a single master categorisation agreed.

3.11 Data not on HMS Extract

3.11.1 The asset catalogue includes details of data from other systems that cannot be matched to HMS (considering both NIHE and non NIHE owned assets on HMS). This includes the following:

- 8 records on SAMs which are not matched to HMS.
- 26 records on AIMS which are not matched to HMS.

- 4 records on lists of commercial property held for operational purposes not matched to HMS

> **Recommendation 12.** It is recommended that the list of assets held on other systems but not on HMS is reviewed to ensure HMS is a complete record of all NIHE owned assets and that other systems do not contain details of assets not on HMS.

3.12   Block Referencing on HMS

3.12.1   In order to match individual units to respective blocks we have matched the property references of assets with a property type of "block" with the block sequencing number of individual units. We are advised that there is an inconsistency in the way in which blocks are labelled, with some blocks representing individual buildings and other representing parts of buildings (e.g. upper/lower floors). We understand this has been done to ease operational repair reporting.

3.12.2   There are 1,210 with a property type of block, which do not appear to be matched to individual units based on the use of the block sequencing number to match units to blocks. This could indicate that the block sequencing referencing system is not fully in use.

> **Recommendation 13.** It is recommended that the block referencing system is reviewed to ensure all blocks can be matched to individual units.

4.0 TRIANGULATION OF DATA ON OTHER SYSTEMS

The HMS base data collected as part of Activity 4 was then compared and triangulated to a number of other core landlord systems, specifically NIHEs Scheme Asset Management System (SAMS), NIHEs Asbestos Information Management System (AIMS), and other data held by staff on separate spreadsheets for operational purposes.

4.1   SAMS

4.1.1   SAMS is a scheme asset management system which contains data transferred from legacy systems relating to archetypes and property attributes. We have been provided with an extract "SHRP - NIHE Property List from SAMS 040314" that includes 92,368 records. 87,602 of these records could be matched to the first HMS extract provided. We were subsequently provided with a "Property attributes" file from SAMS and used this to match later HMS extract provided. There were 436 NIHE owned assets which are not on the "property attributes" file from SAMS.   418 of these have a property description of block on HMS. 8 have a property description of HA House, HA Bungalow, HA Flat and HA sheltered, despite being recorded as an NIHE owned asset. 7 have a property description of flat, and 2 have an unknown property description on HMS.

4.1.2   We have compared dwelling and property type of matched records on HMS with SAMS data on Type and Function. This shows a broad match between the two systems.

4.1.3   There are 8 property records on SAMS which could not be matched to the full HMS extract.

4.1.4   The property attributes file from SAMS shows a more complete list of assets, but does not include details of whether properties are demolished/tenanted/void. Earlier matches between the 18/08/2014 HMS extract and the 040314 SAMS extract showed considerable mismatch between these fields even when taking into account known differences between the properties selected for each extract. This could be due to a difference in timing between the extracts,

issues of incompleteness with the individual extracts provided, or an issue of timely and consistent updating between the systems. Data management protocols will need to clearly identify the fields on each system to be used to identify property status (e.g. demolished, leasehold, pending demolition) and that there is reconciliation between the two systems. This will support accurate identification of repairing liabilities.

> **Recommendation 14.** It is recommended that a clear process is in place for reconciling property lists between HMS and SAMS and for ensuring property status is consistently recorded (e.g. demolished, leasehold) to ensure repairing liabilities are accurately identified.

4.2 AIMS

4.2.1 AIMS is the Asbestos Information Management System. We have been provided with an extract that includes 102,526 records.

4.2.2 We have compared the HMS property type information for the matched records with the AIMS property type. This shows some mismatches as illustrated on the Asset Catalogue spreadsheet for example:

- 22 Bungalows on HMS described as flats on AIMS
- 2 flats on HMS described as bungalows on AIMS
- 6 flats on HMS described as bungalows on AIMS

4.2.3 There are 9,260 records on HMS as NIHE owned which do not appear on AIMS. These include a range of different property types including individual dwellings and blocks where you might expect an asbestos survey to be required. In general it is not clear if an asset is not on AIMS whether this is due to an asbestos survey not having been carried out, or whether an asbestos survey has been carried out and no asbestos identified.

4.2.4   There are 26 records on AIMS which do not appear on HMS. 10 of these are recorded on AIMS as void, non current or pending demolition. This would imply that reconciliation of void/demolition status between the two systems has not been completed fully.

> **Recommendation 15.** It is recommended that AIMS includes a full list of all properties on HMS with reconciliation to ensure demolition status is reconciled between the two systems.

4.3   Land Terrier Management System

4.3.1   NIHE will also need to understand the land holding associated with the property assets and we understand a quality review of land terrier and grounds maintenance records is ongoing. For this reason we have been advised that land terrier and grounds maintenance records are out of scope for the asset catalogue review.

4.3.2   We have explored whether at this stage it is possible to bring in records of folio/title numbers from GIS files (albeit we understand this data is not complete). At the time of the review this was not possible due to the fact that GIS data records are overlapping in areas. A revised sub set of data without overlapping areas has been prepared and title information from this sub set will be brought into the catalogue when the final update of the catalogue is completed with data from the affordable housing register at the end of the asset commission.

4.4   Cross Reference with Survey Data

4.4.1   The master asset catalogue will be updated one final time before the end of the asset commission to ensure the information flowing from Client Requirement 4 relating to an Affordable Housing Register is captured.   Data will also be cross referenced with data from the survey results on a random spot check basis within a structured approach. At the same time, any actions to resolve data anomalies on rents flowing from Client Requirement 6 will be carried forward to the final version of the asset.

5.0 OTHER ASSETS

As part of Activity 5 and Activity 6 consideration was given to a range of assets other than residential properties, these included offices, stores, depots, sewage systems, interfaces, peace walls plus unadopted roads.

5.1   Offices, Stores and Depots

5.1.1   There are 43 operational offices (with ePIMS reference numbers) provided on a separate spreadsheet entitled "NIHE data". We have also received a sheet called "Premises address use source – AK 10072014.xls" which has 42 units on it. This list also includes details of 12 depots and 3 stores. These two extracts do not contain common reference numbers, and neither contains HMS reference numbers. They have been matched and reconciled manually and the differences in office units between the two sheets is due to one property being recorded as two separate offices on the NIHE data tab.

5.1.2   The HMS data on all property includes 29 properties with a tenure description of "NIHE Office Accommodation", 10 properties with a property type description of "NIHE office" (of which only 4 have a tenure description of "NIHE Office Accommodation". There are 28 properties with "Office" written in the address field. 21 of these have a tenure classification of "NIHE office accommodation". All these properties are on SAMS. Not all of these properties are on AIMS.

5.1.3   Very few of the offices selected using any of the three possible flags identified above are recorded as owned by NIHE according to the protocol established for NIHE ownership classification on HMS.

> **Recommendation 16.** It is recommended that a common reference system is established between ePIMs and HMS to facilitate reconciliation of records of office accommodation held on both systems.

> **Recommendation 17.** It is recommended that a single field is identified for recording NIHE landlord offices, stores and depots HMS, with reconciliation to SAMS and AIMS.

5.2 Sewage disposal

5.2.1 We have been provided with a separate spreadsheet entitled "Sewage disposal types" with details 580 septic tanks including biodiscs and klargesters as well as 2 pump stations, 2 sewerage separators and 3 sequential batch reactors. This spreadsheet includes property references from PROPCHAR and therefore we have assumed this is drawn from legacy systems. We have analysed the full SAMS attribute file in order to identify assets in current ownership and matched this to records of NIHE ownership on HMS. We have used the categories of "CH", "SC", "SI" and "None" and "Other" which match the categories listed on the "Sewage disposal types" spreadsheet. There are a total of 588 records of these sewage disposal types on SAMS. 27 of these are no longer in NIHE ownership having been recorded on the system as sold freehold or disposed. This leaves 562 sewage disposal types in NIHE ownership recorded on SAMS and HMS. The spreadsheet from legacy systems had included properties that have subsequently been sold freehold. It is not possible to identify whether assets are adopted or unadopted based on the SAMS attribute files provided.

> **Recommendation 18.** It is recommended that details of sewage disposal types are taken from SAMS, matched to HMS to ensure accurate identification of NIHE owned assets.

> **Recommendation 19.** It is further recommended that HMS includes reference to whether these assets are adopted or unadopted.

5.3   Interfaces and peace walls

5.3.1   We understand from the brief for the asset commission that there are 20 peace walls/interfaces which are NIHE owned. Data on these assets was not included on the HMS extract provided. We understand these are recorded on GIS, along with NIHE repairing obligations. This data has been requested.   The full NIHE owned HMS dataset will also be analysed to identify if these assets are held on HMS.

> **Recommendation 20.** It is recommended that details of NIHE owned and maintained Peace Walls and Interfaces are recorded on HMS and SAMS or future asset management database.

5.4   Unadopted roads, pathways, sewers and drains

5.4.1   The brief refers to some 109 hectares of unadopted roads and pathways and an estimated 20 kilometres of unadopted sewers and drains. The method statement stated that GIS source data for Land Terrier, Grounds and NIHE land is subject to ongoing quality assurance and should therefore be out of scope. It will be important for NIHE to complete the quality review exercise to ensure a full understanding of its assets and liabilities.

5.4.2   During the work to analyse data for the asset catalogue the project team recommended that data should be included in the asset catalogue for large retaining walls and allotments.

> **Recommendation 21.** It is recommended that data on liabilities for large retaining walls is recorded on SAMS and for allotments on HMS.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1   Conclusion

6.1.1   In conclusion the process of preparing a catalogue of NIHE owned assets, and comparing data between different NIHE systems for housing, asset and asbestos management has highlighted a level of data mismatch, gaps and anomalies. However the level of data issues identified is not inconsistent with data reviews we have carried out in other large landlords. The level of mismatch is however likely to present difficulties, for example, in clearly identifying NIHE owned properties, or properties that have been demolished. This makes data management and reporting difficult as staff are required to resolve issues manually to ensure data is fit for purpose to support business reporting.

6.1.2   We have prepared a file which shows all data on HMS, and enables identification of each of the issues set out in this report. This is intended to be a data improvement aid, rather than an additional system established for data holding and data management - as these functions are carried out by the HMS and related systems.

6.1.3   We have set out below the recommendations in this report which are intended to represent a series of data improvement activities that would form part of a business as usual data improvement plan.

6.1.4   The issues can be summarised into a number of key themes including:

- **Data management** – an opportunity has been identified for NIHE to improve its data management protocols. As things currently stand NIHE finds it difficult to quickly and easily identify the assets which it owns. The various systems used to manage the Landlords assets could benefit from consistent referencing between HMS and other major systems.

- **Leasehold properties** – an opportunity exists for NIHE to improve the information it holds on leasehold properties, including the identification of all leasehold sales on HMS and reconciliation with data held for service charge budgeting.

- **Referencing systems** – an opportunity has been identified for NIHE to align the referencing system in HMS to other sub-systems and legacy systems. This will reduce complexity and remove the risk of confusion between datasets and systems.

- **Data consistency and completeness** – this exercise has highlighted a number of data inconsistencies within and between landlord systems plus a number of data sets which are not complete. NIHE should seek to achieve improved levels of data consistency and completeness in the interest of improving operational efficiency and reducing operational risk.

6.1.5 HMS data is held for landlord and regional purposes and it will be important going forward for the system to be configured in a way that provides easy identification, and appropriate separation of data held for the two purposes.

6.1.6 The catalogue can be used to support a data improvement plan that will improve efficiency by reducing staff time taken to manually correct records used for operational planning, and improve the confidence in information to support decision making.

6.1.7 It can also be used to support SHRP activity by ensuring that data is fit for purpose for modelling to inform decision making and help to manage risk during the due diligence process of preparing data for transfer to any future public or private sector landlord.

6.1.8 Key messages arising from the review can be summarised as:

- There's no simple way of identifying all NIHE owned properties – with a need to research data in several different fields to confirm status and a particular lack of clarity on properties sold on a leasehold basis. It is not possible at this stage to arrive at a definitive list of NIHE owned properties

- The three main systems do not completely map across to each other - which means there is a risk that NIHE is unable to accurately identify management and repairing liabilities.
- The transfer of all data from legacy systems is not yet complete and therefore staff continue to use legacy data for operational purposes. There is a duplication of property references between the legacy and current systems that has the potential to create confusion and delays.
- The issues are not unusual when compared with other large scale landlords and can be resolved within an ongoing data improvement plan.

The following observations and insights are of significance and value to SHRP:

- The consolidated asset catalogue as summarised in Appendix 4 provides a robust base line for analytical purposes and will assist in preparing the SHRP Outline Business Case.

- HMS is servicing the needs of the regional body and the landlord function and this will need to be reflected in the business planning process and transition planning if a political mandate is provided for full or partial transfer.

- Current arrangements between data systems mean that staff hold data on NIHE assets locally in various spreadsheets and sub-systems. In the event of a transfer this data will need to be gathered in advance as part of a data improvement project or provisions made during transition planning.

- In the event that a transfer is required the Asset Catalogue can be used to inform the due diligence and transition planning process.

6.2 Recommendations

6.2.1 Recommendations have been prioritised for action as follows:

- Urgent / Immediate (in year requirement)   - 3 months
- High / Short Term   - 12-18 months
- Medium / Medium Term   - 18 months – 3 yrs
- Low / Long Term   - 4 – 5 yrs

6.2.2 Priorities are based on the estimated business impact of the issues identified.

Theme	Recommendation	Priority
Data management	1. It is recommended that a single classification field is used in HMS to identify assets in NIHE ownership.	High
	2. It is recommended that the procedures for the treatment of demolished properties are reviewed to ensure consistency in which HMS field is updated to show demolitions, and to ensure data feeds through to correct fields in SAMS and AIMS.	High
	3. It is recommended that records recorded as pending sale, demolition or HA transfer in the "voiddesc" field are reviewed to check current status and a process is established to ensure pending status is recorded on SAMS and AIMS.	High
	12. It is recommended that the list of assets held on other systems but not on HMS is reviewed to ensure HMS is a complete record of all NIHE owned assets and that other systems do not contain details of assets not on HMS.	High
	13. It is recommended that the block referencing system is reviewed to ensure all blocks can be matched to individual units.	Medium
	14. It is recommended that a clear process is in place for reconciling property lists between HMS and SAMS and for ensuring property status is consistently recorded (e.g. demolished, leasehold) to ensure repairing liabilities are accurately identified.	High

Theme	Recommendation	Priority
	15. It is recommended that AIMS includes a full list of all properties on HMS with reconciliation to ensure demolition status is reconciled between the two systems.	High
Leasehold properties	6. It is recommended that: • A consistent protocol is established to identify leasehold properties with an active service charge account on HMS and that this status is recorded consistently on other systems and matched to data used by finance to set leasehold service charges. • Properties without an active service charge account, but sold on long leases are included on HMS to ensure the legacy freehold interest is recorded on live systems and any ongoing freehold liabilities can be identified.	High Low
Referencing systems	9. It is recommended that the use of UPRN is explored as an alternative to property reference numbers which are not "unique" between legacy and current systems.	Medium
	10. It is also recommended that the use of legacy PROPCHAR property references is discontinued once the data migration process is complete. Clear guidance should be issued to staff to manage the risk of duplicate reference numbers in the meantime by identifying clearly whether HMS or PROPCHAR reference numbers are used.	Medium
	16. It is recommended that a common reference system is established between ePIMs and HMS to facilitate reconciliation of records of office accommodation held on both systems.	Medium
Data consistency and completeness	4. It is recommended that the tenure classification is reviewed to ensure correct and complete tenancy classification to support the requirements of the business.	High
	5. It is recommended that data on all travellers sites in NIHE ownership is recorded consistently on HMS and, where there is an NIHE repairing liability, also on SAMS and AIMS.	Medium
	7. It is recommended that all records of commercial properties held by staff for operational purposes contain a common HMS referencing system and that the HMS list is reviewed to	Medium

Theme	Recommendation	Priority
	reflect up to date position.	
	8. It is recommended that community and statutory lettings are identified on HMS.	
	11. It is recommended that inconsistencies between the different property descriptions are removed and a single master categorisation agreed.	High
	17. It is recommended that a single field is identified for recording NIHE landlord offices, stores and depots HMS, with reconciliation to SAMS and AIMS.	Medium
	18. It is recommended that details of sewage disposal types are taken from SAMS, matched to HMS to ensure accurate identification of NIHE owned assets.	Medium
	19. It is recommended that HMS includes reference to whether sewage disposal assets are adopted or unadopted.	Low
	20. It is recommended that details of NIHE owned and maintained Peace Walls and Interfaces are recorded on HMS and SAMS or future asset management database.	Low
	21. It is recommended that data on liabilities for large retaining walls is recorded on SAMS and for allotments on HMS.	Low

Appendix 1

Method Statement

Key Tasks

1.0   Definition of assets included in the asset catalogue

The catalogue will include all assets associated with the landlord function including residential, shops, hostels, leases, travellers sites, offices, depots and stores and assets held for sale. Play areas are out of scope as none are NIHE owned. Open space within estates is largely out of scope due to ongoing quality assurance process being carried out by NIHE on the land records (see below).

1.1   Scope the data tables and systems to be included in the quality assurance process

Meetings were held with Aaron Price from DSD and NIHE IT staff to understand current data structures and protocols. The following systems have been identified.

- HMS - housing management current asset lists (c87,000 records with rent data)
- SAMS - scheme asset management system including legacy data on archetypes and property attributes
- PROPCHAR - PropChar is a business intelligence datamart combining data from legacy operational systems including PRAWL, Repairs and MIS. These systems are where the data originates from. There are c264,000 property records on PropChar
- AIMS - Asbestos Information Management System
- LTMS - Land Terrier Management System
- CONFIRM - The Grounds Maintenance System
- Data extracts have been provided from most of these main systems

It should be noted that PROPCHAR contains PRAWL and MIS legacy data that is c18 months old. Details of how data migrated across from PROPCHAR to the current live systems was provided by NIHE in the form of a method statement. Data on sold properties was not transferred from PROPCHAR except where there was a live service charge account. This presents a risk that houses sold under the Right to Buy on a leasehold basis, without a service charge account, have not transferred to HMS. Savills will attempt to identify all sold properties

from PROPCHAR that have not been transferred to HMS by reference to information provided by NIHE on the differences between the two data sets. Sales between 1979 and 1985 may have been done on a leasehold basis, although no service charge is recoverable. All sales that can be identified during these dates will be included on the master asset catalogue and assumed to have been made on 999 year leases.

A list of properties held on the asbestos database (AIMS) as at 10/10/2014 and their respective property type has bee provided.

Map files with land terrier, grounds maintenance and NIHE owned land have also been received. These are subject to an ongoing quality assurance process by NIHE.

A matrix of systems used to triangulate data for a master asset catalogue is set out at appendix two.

1.2   Establish and confirm NIHE's current data management protocols

UPRN referencing system includes HMS ref, UPRN and various others. A match table has been supplied containing PRAWL property references vs HMS property references.

The HMS extract provided has already been filtered by NIHE from the original data set of c150,000 records.   NIHE - IT have supplied VBA script to illustrate how data extracts have been prepared. NIHE have provided details to explain the criteria for the application of filters. Data on sold properties with no service charge account has been excluded by the filters. Again, this presents a risk that leasehold interests are not captured on the master data list. These will be identified from legacy data based on date sold (see 1.2 above). NIHE has provided a list of all properties filtered from the list due to code 8 "sold leasehold". Savills will include these in master asset catalogue.

1.3   Agree methodology for validated asset catalogue

NIHE have advised that property data (not all) was migrated from PRAWL to HMS and scheme information from MIS was migrated to SAMS. NIHE are therefore of the view that all current data records have transferred to HMS and SAMS.

HMS extract is therefore to be used as a foundation for the master asset list. NIHE will prepare a detailed statement of what was included in the migration process. This will need to ensure that property acquisitioned or requisitioned since PROPCHAR can be confirmed as included in HMS.

HMS will then be cross referenced against SAMs system and all other subset data tables provided where data can be linked by UPRN or other referencing system.

All data is to be retained and identified as either legacy/redundant or current with ability to produce subset data tables filtering on a range of different attributes.

A single master UPRN system is to be established and applied to all units and all subset data tables (e.g. asbestos register and other compliance databases). The single master UPRN will be based on HMS Prop Ref unless the triangulation process highlights alternatives that are more complete.

A log of gaps/anomalies and data integrity issues will be prepared for discussion and to confirm actions to resolve.

A suggested format for the final asset catalogue is set out at appendix 3.

It is envisaged that findings will be presented in terms of (a) data quality within HMS, and (b) alignment between HMS and other sub data tables.

1.4   Land

NIHE should also seek to understand the land holding associated with the property assets.

The process will include exploration of whether folio number and details of any restrictions on title can be exported from land records (map files) to the asset catalogue.

Once the asset catalogue is in place, data will then be cross referenced with GIS on a random spot check basis within a structured approach. This will be carried out either in NIHE offices on live system or on extract provided.

Data will also be cross referenced with feedback from other workstreams (e.g. survey results and rent data review).

Dependencies and other actions

1.5   Rents

As part of the work to support the rent policy review (Client Requirement 6) the data extract from the current rents system (HMS) has been reviewed and anomalies identified including:

- Properties with no rents
- Properties earmarked for demolition
- Properties where rent charged does not match rent points
- Properties with no rent points

Any actions to resolve data anomalies on rents will be carried forward to the master asset catalogue. This will ensure learning is transferred between the two elements of the commission.

This will be reported as part of the rents project.

1.6 Housing accessibility register

The data to be gathered as part of the survey work (Client Requirement 4) will support NIHE in developing a housing accessibility register. These records will then be flagged on the master asset catalogue which will have a field that logs all other systems where data on the same asset is held.

1.7 Timescales

Validated master asset catalogue in place by mid November 2014. This will represent a base line position of asset ownership as at final date.

The process and timing of future updates will be agreed once baseline is established.

Appendix 2

Data Sources

Source	Data	File Name	Number of records
HMS	Dwellings, travellers sites, garages and commercial properties	Common DSD propertydataHMS as of 18082014	95,669
HMS	Leaseholder	Common dsd propertydata hms code 8 as of 15102014	886 (13 duplicates with HMS extract 18082014)
HMS	All HMS records at 26/11/2014	All_Propertydata_NoFilters	156303
HMS	NIHE owned stock on HMS 02/12/2014	NIHE_Data	109,979
SAMS	Assumed to be all NIHE owned assets where NIHE has a repairing liability	SHRP - NIHE Property List from SAMS 040314	92,368
SAMS	Details of all property attributes held on SAMS	"Property Attributes"	10,594,456
AIMS	Assumed to be all NIHE owned assets with asbestos	AIMS WS	102,526
NIHE Spreadsheet	Dwellings with service charges	SHRP - AllPropsReceivingServiceCharges 30072014	5,812
NIHE Spreadsheet	Commercial	SHRP - Stand Alone Commercial Properties (not under flats) AK 23102014	402
NIHE Spreadsheet	Community and statutory lettings	SHRP - LRP - Community Lettings 17102014	330
NIHE Spreadsheet	PROPCHAR/HMS reference match	Property references	155,419
NIHE Spreadsheet	Offices, depots, stores	NIHE data	43
NIHE Spreadsheet	Offices, depots, stores	Premises address use source – AK 10072014.xls	42
NIHE Spreadsheet	Septic tanks etc	Sewage Disposal Types	587

Appendix 3

Asset Catalogue Format

Asset Catalogue Format

NIHE stock	References (e.g. block/property ref /UPRN/ Department Code)	Address and postcode/ Grid Ref	Property type/construction type/age built/date acquired/ Heating type/	Tenure	Single/ Double/ Beds	Rent points/ rent/service charge/ rates/	Right to Buy code and description.	Recorded on other systems?	Differences in data on other systems	Action log
Based on filters applied by NIHE IT				E.g. General needs, sheltered, N/A for all non residential		Dynamic data (e.g. voids status) excluded - held on HMS	Key to codes to be supplied	Record of which other current systems include details of the asset (e.g. SAMs, AIMS) and matched to records held on separate spreadsheets for operational purposes	Record of any property attributes found on HMS master and other systems (e.g. property type defined differently etc) NB: variable length fields or multiple columns.	Tab one Summary Pivot shows mismatches between and within systems. Tab "NIHE Pivots" shows cross tabs with anomalies and gaps Subsequent tabs list mismatched properties

Appendix 4

Consolidated Asset Catalogue Summary

Tenure and Property Descriptions - NIHE owned assets

Tenure Description	Bedsit	Block	Bungalow	Commercial	Cottage	Flat	Garage	HA Bungalow	HA Flat	HA House	HA Sheltered	Hostel	House	Land	Maisonette	NIHE Office	Sheltered	Travellers' Dwelling	Travellers' Pitch/Site	(blank)	Total	Assumptions
? UNKNOWN ?		8251																			8251	Blocks
Community Lettings										1			1							1	3	Community Lets
Housing Assoc tenant								1	3	3	1										8	Status as NIHE owned asset unclear
Local Authority						6															6	Status as NIHE owned asset unclear
NIHE Commercial				420																	420	Commercial
NIHE Garage							7492														7492	Garage
NIHE Hostel Resident						2						181									183	NIHE tenanted dwelling
NIHE Tenant (Introd)	193		18134		764	17482				1		12	49735		1280		1			61	87663	NIHE tenanted dwelling
NIHE Tenant (Secure)						4							8							2	14	NIHE tenanted dwelling
NIHE-Housing Maintenance													1								1	Tenure unclear
NIHE-Office Accommodation																2					2	Tenure unclear
NIHE-Warden Residence						5														1	6	Tenure unclear
Other	3					5257	57						1		472						5790	Tenure unclear - largely leasehold
Owner-Occupier						4							6							21	31	Status as NIHE owned asset unclear
Private Tenant		15											4	2						1	22	Status as NIHE owned asset unclear
Traveller																		1	33		34	Traveller
Void			1										26							5	32	Tenure unclear
(blank)			3										18								21	Tenure and status as NIHE owned asset unclear
Grand Total	196	8266	18138	420	764	22760	7549	1	3	5	1	193	49800	2	1752	2	1	1	33	92	109979	

Note 1   NIHE ownership based on series of flags applied to HMS database by NIHE IT
Note 2   Shaded green - shows assumed rentable NIHE owned stock
Note 3   Shaded yellow shows queries

Appendix 5

Glossary

Glossary

Abbreviation	Definition
AIMS	Asbestos Information Management System
Anomalies	Areas where data does not appear to present a coherent picture
AWS2	Asset Workstream 2 project team
Block	Building holding multiple individual dwellings
DSD	Department for Social Development
ePIMS	Strategic Investment Board (SIB) maintained public sector asset database
Gaps	Areas where data is missing
GIS	Geographic Information Systems
HA	Housing Association
HMS	Housing Management System (Orchard)
IS&T	Information system and technology
IT	NIHE Information Technology staff
Leaseholder	Someone who has purchased the leasehold interest in an NIHE property – e.g. flats sold under Right to Buy
MIS	Management information systems - Legacy programme/scheme management data
Mismatch	Areas where data is not consistent
NIHE	Northern Ireland Housing Executive
Pointer Reference	Reference number from Pointer system which is a comprehensive and standardised address database provided by Land and Property Services, which holds address information for every property in Northern Ireland.
PRAWL	Legacy Housing Management Data
PROPCHAR	Datamart/Warehouse for PRAWL and MIS data
Property type	Description of property – e.g. flat, house, bungalow
SAMS	Schemes asset management system
Shell	A property reference for communal areas within blocks
SHRP	Social Housing Reform Project
SIB	Strategic Investment Board
UPRN	Unique Property Reference Number