

**NORTH LONDON WASTE AUTHORITY**

**REPORT TITLE:** NORTH LONDON HEAT AND POWER PROJECT – INFORMATION MANAGEMENT STRATEGY

**REPORT OF:** PROGRAMME DIRECTOR

**FOR SUBMISSION TO:** PROGRAMME COMMITTEE

**DATE:** 29 OCTOBER 2019

**SUMMARY OF REPORT:**

This report covers the proposed strategy for information management on the North London Heat and Power Project.

**RECOMMENDATIONS:**

The Committee is recommended to note the approach set out in the Information Management Strategy in Appendix A.

**SIGNED:**  ..... **Programme Director**

**DATE:** 17 October 2019

## 1. INTRODUCTION

- 1.1. The North London Heat and Power Project (NLHPP) team are currently developing and implementing a programme manual - a suite of documents designed to guide successful delivery of the programme. Within this, a series of strategy documents will form the top level of the manual defining the challenges to be addressed, and the strategic approaches to meeting these. The initial set of strategies identified for development and their outline purpose is included in Table 1.

<b>Strategy</b>	<b>Outline Description</b>
Resourcing	Addresses the need for people, assets and funds.
Health, Safety & Wellbeing	Considers all aspects of keeping all parties associated with the NLHPP safe and well
Technical Assurance	Addresses how the Authority will oversee the development of the technical solution and design development
Commercial	Considers the procurement and subsequent delivery of contracts
Risk Management	Looks at the approach to risk on the programme
Monitoring & Control	Considers aspects associated with scheduling, controlling costs and reporting on the programme.
Information Management	Looks at the control of our information, data and knowledge.
Stakeholder Engagement	Addresses the challenges associated with the range of stakeholders in the programme.
Financing	Considers the challenges associated with planning, obtaining and managing the necessary financing for the programme

Strategy	Outline Description
Social Value	Looks at the aspects of social and community benefits that the works will bring.
Construction Management	Deals with the core construction activities and the challenges linked to interfaces, operational site working and logistics.

*Table 1 - List of NLHPP Strategy Documents*

- 1.2. These strategies will be provided to with Members at suitable opportunities to enable an understanding of these challenges of those elements of the project, and how the project team will address them.

## **2. INFORMATION MANAGEMENT STRATEGY**

- 2.1. This report presents the information management strategy. The strategy's purpose is to ensure that the NLHPP programme controls and manages all of its information in a structured, accessible and sustainable fashion.
- 2.2. This strategy highlights the challenges faced by NLHPP in this context. Key aspects relate for example, to the longevity of the programme and the impact of changing personnel and technology over such a long duration. The challenge is how to maintain high quality data throughout this time including maintaining its accuracy, accessibility and reliability.
- 2.3. Members will already be aware of one part of our approach which is establishing a common data environment that will create a single source of project information, via our recently implemented collaboration tool Asite. The strategy provides further aspects of the approaches we are taking.
- 2.4. The strategy covers the following points (with further detail being contained in the document, which is at appendix A):
- 2.4.1 The key challenges involved in managing information on a project of this type, drawing particular attention to the long lifespan of the project and the implications of this for the handover of asset information.
  - 2.4.2 The strategic approach to meeting these challenges based on principles of best practice.
  - 2.4.3 The detailed implementation plans in place or in development to enact this strategy which take into account the "baseline" information management maturity of the project and its stakeholders along with any constraints.
  - 2.4.4 The risks associated with Information Management
  - 2.4.5 The resources required to ensure that the strategy can be implemented.

2.4.6 The stakeholders involved.

### **3. NEXT STEPS**

- 3.1. As with all the NLHPP strategies, this is supported by a suite of management plans and processes which are in varying stages of development or implementation, but which detail the specific methods, systems and roles required to deliver our strategies.
- 3.2. The strategy will be reviewed on a regular basis and updated to reflect the changing environment of the programme and its external environment. Updates will be provided to Members as they are brought into use.

### **4. EQUALITIES IMPLICATIONS**

- 4.1. The strategy takes into account the need for all information to be accessible to stakeholders with disabilities and the use of appropriate tools for this purpose.

### **5. COMMENTS OF THE LEGAL ADVISER**

- 5.1. The Legal Adviser has been consulted in the preparation of this report, and comments incorporated.

### **6. COMMENTS OF THE FINANCIAL ADVISER**

- 6.1. The Financial adviser has been involved in the preparation of this report and all comments have been incorporated.

#### **Contact officer:**



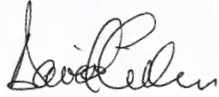
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## **APPENDIX A: INFORMATION MANAGEMENT STRATEGY**



## Information Management – Function Strategy

Document Details	
Document Number	NP-XXXX-XXX-PC-PM-090080
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Assurance Record			
	Author	Check & Review	Approval for Use
Name	Dave Marks	Scott Borthwick	David Cullen
Role	Information Manager	Programme Office Lead	Programme Director
Signature			
Date	07/05/19	17/07/19	10/10/19

Revision Record		
Rev. No.	Date	Description of Revision
1	28/01/19	Initial revision published
2	10/10/19	Change to common strategy template structure and prepared for member submission.

<b>Engagement Confirmation</b>		
<b>Function</b>	<b>Role Support</b>	<b>Notes</b>
<b>Programme Director</b>	<b>C</b>	Consulted
<b>SRO</b>	<b>C</b>	Consulted
<b>SHE&amp;W</b>	<b>C</b>	Consulted
<b>LEL</b>	<b>N/A</b>	
<b>Technical Advisor</b>	<b>N/A</b>	
<b>Technical Authority</b>	<b>C</b>	Consulted
<b>Programme Office</b>	<b>C</b>	Consulted
<b>Project Delivery</b>	<b>C</b>	Consulted
<b>Legal &amp; Governance</b>	<b>C</b>	Consulted

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# 1 Context and Vision

The North London Heat and Power Project (NLHPP) is the programme of works authorised by Development Consent Order (DCO) granted in February 2017 through which the existing energy from waste (EfW) plant at the Edmonton EcoPark will be replaced with a new Energy Recovery Facility (ERF). The programme of works includes provision of a Resource Recovery Facility (RRF) for reception and transfer of waste incorporating a public Reuse and Recycling Centre, and EcoPark House (EPH), a visitor centre which will be used to provide community / education space and back up office space. In preparing for and carrying out the works in the NLHPP programme, the management team is working closely with LondonEnergy Ltd (LEL) the operators of the EcoPark and the current EfW plant.

**“Create a waste management facility in which local communities take pride, which demonstrates value and is a model for public sector project delivery”**

The NLHPP leadership team have developed a vision for the programme, highlighted above. Each function of the programme organisation will play a role in delivering the vision and this document, the “functional strategy”, sets out the challenges to achieving the vision and the approach to overcoming them.

## 2 Purpose

This document is the functional strategy for Information Management (IM). Its purpose is to ensure that the NLHPP programme controls and manages all of its information in a structured, accessible and sustainable fashion.

By setting a best practice approach to managing documents and information, this strategy will particularly support the NLHPP vision in a) providing an exemplar management approach that can be held as a future model for others to follow, and b) consequential demonstration of value by minimising costs and risks associated with managing data and ensuring it's accurate and appropriate use.

Successful development and implementation of an information management strategy and the associated systems/processes will deliver value and provide the benefits of:

- reducing risks – “one version of the truth”
- improving efficiency – data reused rather than recreated
- improving decision support – data available to all who need it

The IM objectives are therefore:

- To achieve simple, robust and reliable systems and processes that support each IM function;
- To provide fit for purpose training, guidance material and support for all programme personnel, to enable most efficient use of systems/processes implemented.
- To ensure that fully compliant and up to date programme information can be handed over to NLWA or successor organisation at the end of the programme or indeed at any nominated time.

### 3 Starting Point

Historically, the NLHPP management team had no specific IM plans and did not have a fully accessible, centralised system for collating and transmitting project information.

Until now, a mixture of inhouse network drives and SharePoint (Project Team Site) for work in progress type documents have been in use. Formal deliverables were uploaded to the Stephenson Harwood “Dataroom” for exchange with advisors. In doing so, an established numbering protocol was used.

Independent systems existed for specific purposes, e.g. contract administration of initial site-based contractors and procurement documentation transmission. Working processes and organisational IM architecture is set up for “business as usual” functions of the NLWA (e.g. for member meeting submissions) but have not yet been optimised for the management of a large-scale construction programme.

### 4 Challenges

The programme challenges that this strategy will support the addressing of are:

Challenge	Description
<b>Long-term project timescale</b>	The length of the programme will likely have individual team resources change throughout with the risk of knowledge loss and subsequent re-work that follows;
<b>Lack of existing project infrastructure</b>	The current state is that of an early project environment where information, processes & requirements are still being defined
<b>Multiple contractors</b>	The delivery strategy has a series of individual projects, which will likely each be delivered by different contractors of varying lengths of engagement;
<b>Public body client &amp; Disclosure</b>	The nature of the NLWA as an organisation means that all decisions and records must be recorded, auditable and potentially made public (e.g. through Freedom of Information (Fol) requests); In many cases information will automatically become public where submitted to members.
<b>Asset Management</b>	The requirement for a useable Information Asset to be available to the authority to support maintenance and any future programmes of work;
<b>Document Volume</b>	The assurance of the quantity of programme documentation involved will put significant workload on a comparatively small management team – and this could create bottlenecks.
<b>Existing Data</b>	The programme has been ongoing for several years and has already generated a substantial amount of data and documents. Retaining and using this as well as avoiding disruption in future plans is vital.
<b>Accessibility &amp; Sources</b>	To deliver successfully, all team members will require easy access to relevant data from known and quality-controlled sources.
<b>Quality in Decision-Making</b>	The programme’s data must be reliable, consistent and controlled to ensure that decisions are suitably informed and not at risk due to incorrect materials being used.

## 5 Strategic Approach

The approach to meeting these challenges will be based around the following key areas:

Area	Explanation	Addresses
<b>Common Data Environment</b>	Establishing suitable collaborative tools and methods for core information areas, including design, management and programme status materials.	<ul style="list-style-type: none"> <li>• Accessibility &amp; Sources</li> <li>• Lack of existing project infrastructure</li> <li>• Multiple contractors</li> </ul>
<b>Single Source</b>	Use of a single source of truth for programme information that is accessible for all to input and extract information, including relevant pre-existing records	<ul style="list-style-type: none"> <li>• Quality in Decision-Making</li> <li>• Accessibility &amp; Sources</li> <li>• Existing Data</li> </ul>
<b>Future-proofing</b>	Future-proofing is considered throughout to ensure that systems and processes can be maintained throughout the long duration, and beyond into operation of the assets	<ul style="list-style-type: none"> <li>• Long-term project timescale</li> <li>• Asset Management</li> </ul>
<b>Process definition</b>	Consistency and transferable methods are implemented to allow routine use with all parties (e.g. contractors) joining the NLHPP, regardless of their role;	<ul style="list-style-type: none"> <li>• Lack of existing project infrastructure</li> <li>•</li> </ul>
<b>Engagement</b>	Engage with all project participants to develop a culture of record keeping and adherence to good IM practices	<ul style="list-style-type: none"> <li>• Public body client &amp; Disclosure</li> <li>• Accessibility &amp; Sources</li> </ul>
<b>Quality Controls</b>	Establishing control methods (e.g. review and approvals) for producing and distributing key information to ensure reliability and accuracy.	<ul style="list-style-type: none"> <li>• Quality in Decision-Making</li> <li>• Public body client &amp; Disclosure</li> <li>•</li> </ul>
<b>Workflow Monitoring</b>	Implementation of suitable oversight on document assurance and other workflows to determine bottlenecks, delays or process failings.	<ul style="list-style-type: none"> <li>• Document Volume</li> <li>• Lack of existing project infrastructure</li> <li>• Quality in Decision-Making</li> </ul>
<b>Digital exploration</b>	Explore opportunities to enhance the IM environment with developing digital enhancements, e.g. for presentation of project data.	<ul style="list-style-type: none"> <li>• Long-term project timescale</li> <li>• Lack of existing project infrastructure</li> </ul>
<b>BIM development</b>	Develop a best-practice “building information management” system to support successful construction delivery and future operational management of the assets.	<ul style="list-style-type: none"> <li>• Asset Management</li> <li>• Existing Data</li> <li>• Accessibility &amp; Sources</li> <li>• Multiple contractors</li> </ul>

The overriding aim is to have *one version of the truth*. To achieve this the most important building block is the successful implementation of a Common Data Environment the basis of which is the programme wide use of a Collaborative Programme Management Tool (Asite). This fundamental element allows all other aspects of the strategy to be delivered – it will host the document processes and quality controls, provide the primary vehicle for team engagement with the programme’s information and allow for development of BIM, digital enhancements and future opportunities.

## 6 Supporting Plans

The following management plans and supporting documents will be required to implement this strategy.

Strategic Plan	Purpose	Description
<b>Information Management Plan</b>	Method of management for Programme Information	Sets out in detail the systems and processes to be used for implementing the Programme's Information Management Strategy (e.g. approvals, transmission protocols, document naming)
<b>BIM Strategy &amp; Employer's Information Requirements</b>	To define the approach to Building Information Management	Sets out the BIM targets for the programme and the requirements leading from this to be delivered by the designers and contractors.
<b>Digital Strategy/Plan</b>	To establish aims and objectives regarding the use of digital technologies.	Set out the approach to identifying and developing opportunities for digital enhancements and tools for managing and using programme data.
<b>Access &amp; Security Protocol</b>	To control access to NLHPP information	Sets out the methods by which parties will be provided access to relevant information and audit process to maintain it.
<b>Document &amp; Deliverable Assurance Protocol</b>	To define quality protocols over Deliverables and document publication.	Sets out the approvals and controls that ensure the correct versions and publications are used and for their appropriate purpose.

## 7 Risks

Potential risks which threaten the successful delivery of this strategy are:

Description	Planned Mitigation(s)
<b>Lack of engagement from members of the delivery organisation</b>	<ol style="list-style-type: none"> <li>1) Comprehensive and regular communication of the information management process.</li> <li>2) Clear point of contact and responsibility for each organisation to ensure availability of support.</li> <li>3) Ensure systems are simple and easy to use, and processes are developed in line with this.</li> <li>4) Develop monitoring reports from the tools/systems to measure and respond to usage (or lack of it).</li> </ol>
<b>Data Security and incorrect release of information.</b>	<ol style="list-style-type: none"> <li>1) Defined access protocols</li> <li>2) Ensuring that all systems and process are subject to regular check and audit regarding information security.</li> <li>3) Ensuring that all programme personnel are properly educated in best practice information management and trained in avoiding common mistakes (e.g. phishing scams)</li> </ol>
<b>Data fidelity failure</b>	<ol style="list-style-type: none"> <li>1) Defining and briefing clear procedures and protocols in place using systems which are fit for purpose.</li> </ol>

Description	Planned Mitigation(s)
	2) Ensure a clear “single source” for data and awareness of all parties. 3) Ensure continuous improvement and lessons learned practices to identifying and fill gaps in information controls.
<b>Obsolescence</b>	1) Ensure systems and practices are amenable to future developments and increase in workload. 2) Maintain awareness of outside developments in the field and identify enhancements required to programme tools and to competence of key staff. 3) Ensure long-term access to underlying data to allow for transition of systems, should the need arise.

## 8 Development

The Information Management Strategy is intended to be valid for the duration of the NLHPP programme, however, it is recommended that this strategy document and associated plans are reviewed periodically – ideally every six months. This is to allow a check that new or emerging challenges and strategic opportunities continue to be addressed suitably and that systems, processes and people engagement remains suitably fit for purpose and is compliance with requirements.

A road-map will be developed as part of the information management plan to provide a progressive development of the IM environment, including allowing for the opportunity to introduce new digital tools and technologies where there is a benefit or value to be gained.

## 9 Resources

In establishing and delivering this strategy and its subsequent management plan, some key resource requirements have been identified:

Resource	Requirement
<b>People</b>	<ul style="list-style-type: none"> <li>• Specialist Information Manager*</li> <li>• Established discipline specialists for BIM development and implementation</li> <li>• Document Control function to deliver day-to-day IM functions</li> <li>• All team members in terms of time to engagement with risk management and ongoing delivery of the strategy.</li> </ul>
<b>Tools</b>	<ul style="list-style-type: none"> <li>• Collaboration Tool procured and implemented, with suitable functionality for document management, contract administration and BIM modelling.</li> </ul>
<p>* Information Management for the programme shall be overseen by a nominated Information Manager within the meaning of the term set out by the Construction Industry Council’s scope of services for Information Management. They shall be responsible for the overall information architecture of the programme and will report to the PO Lead.</p>	

## 10 Functional Stakeholders

A high-level summary of stakeholder interfaces is captured below. A full detailed stakeholder management plan with regards to this function will be prepared within the relevant management plans.

<b>Stakeholder</b>	<b>Relationship</b>
<b>Programme Office</b>	Accountable to and aligning with functional strategy and objectives.
<b>Project Delivery</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Governance and Legal</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Commercial</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Finance</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Technical Authority</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Professional Advisors</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Technical Advisors</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Legal Advisors</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Planning Advisors</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Financial Advisors</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Supply Chain/Contractors</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Operator/LEL</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Officers</b>	Providing information management service to and receiving input to requirements and feedback on IM function
<b>Members</b>	Provide approval for procurement of tools/systems of appropriate scale.
<b>Public</b>	No direct external contact