NORTH LONDON WASTE AUTHORITY

REPORT TITLE: NORTH LONDON HEAT AND POWER PROJECT UPDATE AND REPORTS

REPORT OF: PROGRAMME DIRECTOR

FOR SUBMISSION TO: PROGRAMME COMMITTEE

DATE: 29 OCTOBER 2019

SUMMARY OF REPORT:

This report provides Members with an update on progress of the North London Heat and Power Project (NLHPP) current at the end of the September reporting period.

RECOMMENDATIONS:

The Committee is recommended to note the contents of this report.

SIGNED: Programme Director

DATE: 17 October 2019

1 INTRODUCTION AND PURPOSE

- 1.1 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.
- 1.2 This status report provides Members with an update on progress of the NLHPP. This report reflects the status of the programme on the 27 September 2019, the end of the most recent reporting period. Where significant updates have occurred to this status since that date, an update has been included. The report structure provides a narrative in the main body with a dashboard style report on the status of the programme included in Appendix A.

2 PROGRAMME DIRECTOR'S STATEMENT

Status Summary

- 2.1 Last month, this report referred to a number of concerns and assumptions that the programme team felt were putting the delivery against schedule at risk. While the team were indicating the programme to be on track at that point, work done on detailed scheduling of works and its interfaces with on-going operations has led to a revision in our forecast.
- 2.2 The EcoPark South completion in 2022 is forecast to be approximately 4 months later than the current baseline. The key driver for this is late completion of Sewer Diversion Main Work based on the schedule submitted by the contractor.
- 2.3 Actions are identified with the aim of recovering the forecast delay by rescheduling two interfaces as described below.
 - 2.3.1 Interface between Transport Yard (Hawley Road Site) completion and the commencement of Sewer Diversion Enabling Works on site during the last period, the team reviewed and updated the schedule to focus on the interface between the release of the transport yard and enabling works for the main sewer drive shaft as a critical activity.
 - 2.3.2 Interface between the Sewer Diversion Main Work and EcoPark South Construction the schedule submitted by the successful bidder for the Sewer Diversion contract indicates completion 16 weeks later than the baseline. The EcoPark South Construction piling work is planned to run concurrently with the Sewer Diversion Main Work, but the majority of the construction cannot commence until the Sewer Diversion is completed and there is a knock-on effect delaying the completion by the same 16-week period.

- As part of the broader construction management activities, the team are focussing on the phasing plans for the work in the southern part of the site. This will examine opportunities to deliver schedule recovery by:
 - 1.1.1 Earlier migration of transport yard activities to Hawley Road
 - 1.1.2 Bringing forward a partial handover of LEL's current transport yard facilities to the Sewer Enabling Works contractor, enabling earlier start of construction works.
 - 1.1.3 Bringing forward a partial handover of sewer shaft areas from the Enabling Works to the Main Works contractors.
 - 1.1.4 Early Contractor Involvement of EcoPark South Contractor to benefit from specialist construction knowledge/logistics planning.
 - 1.1.5 Shared construction space between EcoPark South and Sewer Diversion Main Works contractors.
- 2.5 The team will also be examining implications for the future projects (Northern Area Clearance and the ERF), whose programmes are under currently under detailed development. For the purposes of this report, we have assumed no immediate impact, and that any further impact resulting from the delay to the EcoPark South completion date can be recovered subsequently.
- 2.6 In addition, there are further areas which continue to be under focus to manage their risk to the schedule.
 - 2.6.1 The Northern Area Clearance works require development to ascertain an improved understanding of the scope of work and schedule required to provide a site in suitable condition to be handed to the ERF contractor.
 - 2.6.2 Utility works on the west of the EcoPark require a review of the schedule to reflect new technical information received from a site survey.
 - 2.6.3 The ERF detailed schedule and procurement strategy are under development with the project management, technical and commercial teams.
- 2.7 From a cost perspective, the programme remains on target against its overall budget. Completion of recent procurement events have led to finalised contract values for four contracts that align with the programme budget.
- A further key focus of the programme management relates to works on the laydown area. The Laydown East contractor has overrun their contract completion date, caused by several factors, including poor sub-contractor performance and a failure to recognise regulatory standards required for key asset testing. The management team have worked closely with the contractor in the last few weeks to analyse in detail the works required to reach contract completion and have supported the contractor in delivering an acceptable close-out programme. The current expectation is for works to complete pre-Christmas.

2.9 The completion of the Laydown Area and new Eastern Access road remains on schedule with the award of the Laydown Area West contract. The completion of the first phase Laydown Area East works has been extended and does not impede the overall completion of the Laydown Area.

2.10 Achievements

- 2.11 There have been several achievements in the recent period which are highlighted for Members' awareness:
 - 2.11.1 Digital Collaboration Tool The programme collaboration tool "Asite" was successfully launched on 30 September 2019. This tool will be used to manage the information shared between all programme stakeholders. The team are all now working in this system and further functionality will be implanted in tranches over the coming months, based on prioritised needs.
 - 2.11.2 EcoPark South Procurement At the 3 October 2019 Authority meeting, approval was granted for delegation to commence procurement of the contractor for the EcoPark South project. The supporting market information day (MID) has since successfully taken place with approximately 50 organisations represented either in the room or attending over the internet. The tender process will commence during October 2019.
 - 2.11.3 Contract Award Notification of awards have been issued for two contracts in relation to the sewer diversion the enabling works (E2b) and main works (E2c) following completion of the procurement processes. Contract Award and announcement of the successful tenderers will be made during October.

Current Focus

- 2.12 The following items are areas of the programme which the team will be particularly focusing on in the coming weeks
 - **2.12.1 EcoPark South Procurement** As mentioned in the achievements section, key milestones of Member approval and market information day have been met. In parallel to these, the focus for the team continues to be on finalising the tender and contract documents for publication.
 - 2.12.2 Transport Yard Procurement The procurement process commenced in mid-October. A paper updating on plans to award and manage the contract is issued to Members alongside this report. As part of this, the contract award will be held until planning consent is achieved, to avoid costs associated with a delayed start on site resulting from an adverse planning decision.
 - 2.12.3 Schedule Risk Analysis (SRA) Workshops are underway to examine the impacts of risks specifically associated with activities on the schedule, up to and including the completion of the EcoPark South project. Reports are expected to be issued for management review during October and key findings will be highlighted to Members at the December 2019 Authority

- meeting. Further work to include the northern area clearance and ERF will follow once a more detailed schedule for each is in place.
- 2.12.4 **Budget Preparation** Activities are underway to confirm the forecast expenditure for the next three years to be included in the Authority Budget Update in December. A plan has been developed which will incorporate assessing costs of each contract in place, the value of expected advisor fees and all North London Waste Authority (NLWA) direct and third-party costs.
- 2.12.5 Utility DNO interactions The project has several key interfaces with utility providers/district network operators (DNOs). UKPN, Cadent and Thames Water have significant roles to play in the success of the programme. To that end, stakeholder plans have been developed to monitor and manage these interfaces, with project managers and technical assurance colleagues having key roles in progressing technical and delivery matters with them. Understandably, these relationships and the work associated with them are considered significant risks to the programme. An escalation route is available to senior NLWA officers to enable higher-level engagement with the DNOs should the need arise. This process has been used to positive effect earlier in the programme to improve the timeliness of communications and decisions.
- 2.12.6 Buildings Information Management (BIM) Following the launch of the collaboration tool, Asite, attention is focused on developing the BIM environment for the programme, including how design will be co-ordinated with future contractors, and what the long-term operational requirements for asset information will be. To accelerate this, a project manager has been appointed to lead the development and co-ordinate the technical specialists of each organisation.

3 PROJECT SUMMARY

3.1 The NLHPP programme has been structured as a series of individual projects. The current status of each is presented below.

Project	Progress in Period	Activities Next Period	Key focus	Next Milestones
E1a1 (Laydown Area East)	Construction activities continuing, revised programme accepted.	Continuation of construction activities.	Completing drainage.	Completion and handover.
E1a2 (Laydown Area West and Eastern Access)	Moorings under bridge moved on, floating pontoons in place on towpath side, and means implemented to deter further mooring.	Execute the Contract and hold collaborative kick-off meetings.	Mobilisation and incorporating lessons learnt into management measures.	Contract signature.
E1b (Northern Access)	PL Insurance issues resolved. Pre-Construction H&S Plan accepted. Protection from illegal occupation installed. Contractor Access to Site implemented. F10 Notice in place (notification to the H&S Executive). Programme submitted for Acceptance.	Programme Acceptance. Contractor's Areas Mobilised. Collaborative interface with UKPN works in Ardra Road established.	Programme acceptance. Mobilisation. Design activities.	Start construction activities.
E2a (Transport Yard relocation)	Submission of application for planning permission. Development of the ITT documentation preparatory to issue in Mid-October. Commencement of ground investigation works on site	Issue of the ITT for the contract works and conclusion of lease agreement.	Receipt and negotiation of lease. Liaison with planning dept.	Issue of ITT
E2b (Sewer Diversion Enabling Works)	Completed ITT evaluation and notified tenderer of Authority decision.	Following standstill period complete contract award and sign contract.	Prepare for project kick off.	Contract start date 23rd of October 2019.

Project	Progress in Period	Activities Next Period	Key focus	Next Milestones
E2c (Sewer Diversion Main Works)	Completed ITT evaluation and notified tenderer of Authority decision.	notified tenderer of Authority complete contract award and off.		Contract start date 25th of October 2019.
E3a (RRF and EcoPark House)	Member delegation to commence procurement obtained.	Market Information Event and tender publication through OJEU.	Tender document development.	Procurement launch
E4 (Utility Corridor and Main Distribution Network Operator (DNO) connections) –	Design - 3D Modelling. Design – Cadent route options study Mobilisation - UKPN cable laying in Meridian Way.	Design – continue 3D modelling. Design – Cadent route options UKPN cable laying in Meridian.	Cadent gas main route options. 3D modelling for spatial understanding.	Cadent gas main route options study. Publish 3D model
E7 (ERF)	Full-time permanent Project Manager appointed First draft of the procurement strategy issued for comment	package for discharge of DCO conditions to be completed by		Formal submission of design for discharge to London Borough of Enfield 31-Jan-20
E8 (EfW demolition and decommissioning) and E9 (Southern Access widening)	No current activities.	No current activities.	No current activities.	No current activities.

4 SCHEDULE SUMMARY

4.1 The following milestones (reflecting significant points in delivery) have been identified and highlighted for Authority awareness, along with progress against them and where appropriate mitigation plans to recover identified delays. The deviations reported in the table below are based on working days.

Milestone	Baseline Date	Forecast Date	Deviation to Baseline	Recovery Action
Complete works to Hawley Road site (Temp long term LEL Transport Yard)	6 July 2020	6 July 2020	0	
Complete Laydown Area	30 October 2020	30 Oct 2020	0	
Start Enabling Works to Shaft A Area on site	7 July 2020	7 July 2020	0	
Start Sewer Diversion Works on site	16 November 2020	16 November 2020	0	
Start EcoPark South Works on site (with some restrictions)	5 January 2021	5 January 2021	0	
Complete Sewer Diversion work	25 August 2021	16 December 2021	16 weeks	Earlier migration of transport yard activities to Hawley Road. Analyse with LEL the potential partial handover of LEL's current transport yard facilities to the Sewer Enabling Works contractor, enabling earlier start of construction works. Bringing forward a partial handover of sewer shaft areas from the Enabling Works to the Main Works contractors.
Completion of Construction works of EcoPark South (RRF)	1 August 2022	21 November 2022	16 weeks	Early Contractor Involvement of EcoPark South Contractor to benefit from specialist construction knowledge/ logistics planning. Shared construction space between EcoPark South and Sewer Diversion Main Works contractors.
Northern Area Clearance -	31 March 23	31 March 23	Under Review	As the later projects are still being developed in detail, we have assumed no immediate

Milestone	Baseline Date	Forecast Date	Deviation to Baseline	Recovery Action
Remediated Complete				impact, and that any delay to the EcoPark South completion date can be recovered subsequently.
ERF – Commissioning – Take over (O&M engaged in operations)	19 Dec 2025	19 Dec 2025	0	
EfW – Demolition Complete	19 June 2030	19 June 2030	0	
Southern Access Road – Works Complete	14 May 2031	14 May 2031	0	

5 RISK SUMMARY

- 5.1 This section summarises key risks and the associated actions to mitigate each risk.
- The following table features strategic level risks. These risks will be presented in this report periodically due to their significance to the overall programme and requirement for concerted management attention. Where there has been significant change or progress in risk mitigation, additional detail will be provided.

Risk Title	Mitigation plans
NLHPP / LondonEnergy Ltd coordination	Sustained senior NLHPP engagement with LEL to agree site management protocols
Utilities, services and ground conditions	Undertake detailed site investigations across the site to achieve greater confidence in service locations and scope definition for Construction.
Construction Sequencing (South Site)	Complete comprehensive investigation into sequencing options and establish full integrated schedule between Transport Yard, Sewer Enabling Works, Sewer Main Works and EcoPark South Construction.
Risk of negative public perception	Continue NLHPP communications campaign of project benefits.
Health & Safety Management	Establish NLHPP Health & Safety management system.

- 5.3 The following risks continue to be the key "proximity" risks, i.e. they will either occur or require mitigation actions in the next 3-6 months.
- 5.4 The table below provides a detailed update on actions against each "proximity" risk.

EcoPark South Site - operational conditions during construction	Commentary
Mitigation update	 Design validation process sign-off (NLWA & LEL) on Value Engineered design; Complete Construction Management Plan; Complete Strategy for procurement/build of north weighbridges agreed – to be procured outside of EcoPark Contract.
Further mitigations planned	Establish specific dates associated with phasing and integrate these into master schedule and procurement documentation.
Statutory undertakers (UKPN, Cadent) may not complete works to programme and impact Sewer Enabling Works	Commentary
Mitigation update	UKPN delivery teams have been engaged (11kva and 33kva units) and have visited site to confirm works required to make cables redundant.
Further mitigations planned	 Identify a Contractor to expose UKPN cables and confirm access to date to UKPN; Nov-19
Uncertain schedule impact associated with subground excavations required on Northern Area to achieve 'clear site' for ERF start.	Commentary
Mitigation update	 Undertake study to over-lay proposed ERF against existing infrastructure to determine gaps in removal. Establish mitigation strategy to EA to discharge consent with LB Enfield and inform design/demolition requirements
Further mitigations planned	Assess alternative operational strategies to enable earlier access to Northern Area.

6 HEALTH, SAFETY & WELLBEING

Development of the programme's health and safety plans and working practices are continuing, with management assurance plans and contractor requirements documents undergoing final assurance reviews. Detailed goals and measures for the team's performance in this discipline are being developed. On site, the safety performance of the Laydown Area East contractor has improved, although there were minor observations noted and acted upon in the last month. Works at Hawley Road (the future transport yard location) were temporarily postponed over concerns on the security of the site. This matter is being addressed with the landlord, London Borough (LB) Enfield.

7 STAKEHOLDER ENGAGEMENT

- 7.1 Recent engagement with the public has included:
 - 7.1.1 A roadshow at the Edmonton Green Library, providing an opportunity for residents to talk informally to team members and find out about the project. The roadshow was in place for two hours, and the team held conversations with 27 people;
 - 7.1.2 The Programme Director attended a meeting of the local ward forums for Upper and Lower Edmonton, Edmonton Green and Haselbury, and provided a presentation on the NLHPP. The meeting was well attended, and the questions on the presentation included issues of environmental impact and local employment, which were responded to based on the analysis carried out for the project development, as updated recently, and on the policies for employment developed with Members.
 - **7.1.3** The next Community Liaison Group meeting will take place at the end of October. Agenda items will include an update on the construction at the site.

8 GOVERNANCE

8.1 Liaison with borough officers continues, in particular with the Partnership Board (membership one Director, Finance or Environment, from each Constituent Borough) on developments in the NLHPP, and with the Directors of Finance on matters affecting finance and the anticipated levy.

9 EQUALITIES STATEMENT

9.1 No items in this report compromise the NLHPP equality objectives.

10 COMMENTS OF THE LEGAL ADVISER

10.1 The Legal Adviser has been consulted in the preparation of this report and comments have been incorporated.

11 COMMENTS OF THE FINANCIAL ADVISER

11.1 The Financial Adviser has been consulted during the preparation of this paper and all comments have been incorporated

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APPENDIX A: DASHBOARD REPORT



Programme Committee Meeting 29 October 2019

Appendix A NLHPP – Dashboard Report





Contents

Contents	#
Programme Summary	3
Project Health Check	4
Project Health Check - Key	5
Schedule Dashboard	6
Risk Dashboard	7

Please note that the dashboard contains information updated to the date of report publication (17/10/19). The project reports contained in Appendix A of the Programme Update (Part 2) reflect the most recent period-end of 27/09/19. Any discrepancies between these reflect events and information coming to light in the period in between.



Programme Summary

Completed within previous period:	Look ahead for next period:
 Northern Access Works (E1b) - Contractor mobilised and site preparation works commenced. Transport Yard - Full planning application for the works submitted to LBE Asite – launched and transition from previous data-room complete. Intrusive Surveys – Works have commenced on site EcoPark South - Delegation from Members to begin procurement process. 	 Sewer Diversion Enabling and Main Works (E2a,b) – Contract Awards to be made Laydown Area West and Eastern Access (E1a2) – Commencement of contractor mobilisation following contract signature. EcoPark South (E3) Finalisation of ITT documentation and publication Market information Day to be held. Transport Yard (E2a) Preparation and issuance of ITT. Commencement of ground investigations.
Not achieved in previous period:	Issues for resolution:
Laydown Area East: Laydown East contract completion – detailed assessment of schedule and cost situation underway with NLHPP Project Manager and Contractor. A number of compensation events have been raised and rejected by the NLWA, but may require more discussion to close. Laydown West contract award – execution deliberately delayed to allow finalising of the contract programme, to ensure robust monitoring can take place from commencement. No current critical path impact, works scheduled to start on site in January. Interface between contracts is subject of current review – not considered to have any critical path impact.	 Schedule delay to completion of Sewer Diversion and EcoPark South works - development of recovery plans are underway, focussing on works phasing plans and interfaces between contractors UKPN works - have unexpectedly commenced works in Ardra Road which creates logistics and H&S risks for NLWA and Northern Access works. Project Manager and Contractor working together to respond to challenge. Cadent routing study - required to inform re-baselining of E4 works and to understand interfaces with EPS and ERF construction works. PM engaging with Cadent. BIM (building information management) - development of capability is not as advanced as it should be. New PM appointed to lead and develop the discipline. Northern Area Clearance - baselining of this new project required - PM now appointed and progressing execution plan.



Project Health Check

Project	Co	st	Sche	dule	Ris	sk	Н&	s	Ove	rall
	In-period	Period Trend	In-period	Period Trend	In-period	Period Trend	In-period	Period Trend	In-period	Period Trend
Laydown Area (East) - E1a1				1		1		1		1
Laydown Area (West) & Eastern Access - E1a2		\Rightarrow		1		1		\Rightarrow		1
Northern Access - E1b				$\qquad \qquad \Box \\$				1		\Rightarrow
Transport Yard - E2a		1		\Rightarrow		\Rightarrow		1		\Rightarrow
Sewer Diversion (Enabling Works) - E2b		$\qquad \qquad \Longrightarrow \qquad$		$\qquad \qquad \Longrightarrow \qquad$						
Sewer Diversion (Main Works) - E2c		\Rightarrow		1		1		\Rightarrow		1
EcoPark South – E3a		$\qquad \qquad \Box \\$		1		1				1
Northern Area Clearance – E3b		NEW		NEW		NEW		NEW		NEW
Utility Corridor and Main DNO connections - E4								$\qquad \qquad \Box \qquad \qquad \\$		$\qquad \qquad \Longrightarrow \qquad \qquad$
Energy Recovery Facility (ERF) - E7		\Rightarrow		\Rightarrow		\Rightarrow		\Rightarrow		\Rightarrow
EfW demolition and decommissioning - E8		$\qquad \qquad \Longrightarrow \qquad$						$\qquad \qquad \Box \\$		$\qquad \qquad \Longrightarrow \qquad \qquad \\$
Southern Access Widening - E9		\Rightarrow		\Rightarrow		\Rightarrow		\Rightarrow		\Rightarrow



Project Health Check - Key

Key	Cost	Schedule	Risk	Health and Safety	Overall
•	Understood and being managed appropriately for the stage of the project, with performance in line with baseline.	Understood and being managed appropriately for the stage of the project, with performance in line with baseline.	Understood and being managed appropriately for the stage of the project, with performance in line with baseline.	Health and Safety risks understood and being managed effectively. No minor or major incidents reported.	All green
	Minor concerns emerging, mitigations developed and prepared to keep performance in line with baseline.	Minor concerns emerging, mitigations developed and prepared to keep performance in line with baseline	Minor concerns emerging, mitigations developed and prepared to keep performance in line with baseline	Minor incidents occurring with root causes known and action plans in place.	Two or more amber assessments in functions.
	Issues being actively managed but high risk of impact on Baseline performance.	Issues being actively managed but high risk of impact on Baseline performance.	Issues being actively managed but high risk of impact on Baseline performance.	Major incidents occurring with senior management intervention.	Any red assessment in any function

Key	Context						
	No material change in status between the current and previous period						
1	Adverse change in status between the current and previous period						
1	Positive change in status between the current and previous period						



Schedule Dashboard

Milestone (Critical)	Baseline Date	Forecast Date	Deviation to Baseline	Interface	Deviation Impact and Recovery Plan
Complete works to Hawley Road site (Temp long term LEL Transport Yard)	6 July 2020	6 July 2020	0	Enables start of enabling works to Shaft A	
Complete Laydown Area	30 October 2020	30 Oct 2020	0	Enables new Eastern Access road to open to light traffic.	
Start Enabling Works to Shaft A Area on site	7 July 2020	7 July 2020	0	Requires relocation of Transport Yard to Hawley Road	
Start Sewer Diversion Works on site	16 Nov 2020	16 Nov 2020	0	Requires enabling works to Shaft A area to be completed	
Start EcoPark South Works on site (with some restrictions)	25 Jan 2021	25 Jan 2021	0	Access to sewer shaft construction area not available until December 2021	
Complete Sewer Diversion work	25 August 2021	17 Dec 2021	- 16 weeks	Enables access to full EcoPark South work site	Examining a partial handover of LEL's current transport yard facilities to the Sewer Enabling Works contractor, enabling earlier start of construction works.
Completion of Construction works EcoPark South (RRF)	01 Aug 2022	21 Nov 2022	- 16 weeks	Enables transition of existing operations and commencement of Northern Area Clearance.	Early Contractor Involvement of EcoPark South Contractor to benefit from specialist construction knowledge/logistics planning. Shared construction space between EcoPark South and Sewer Diversion Main Works contractors.
Northern Area Clearance - Remediated Complete	31 March 23	31 March 23	Under Review	Enables the commencement of ERF construction works	As the later projects are still being developed in detail, we have assumed no
ERF – Commissioning – Take over (O&M engaged in operations)	19 Dec 2025	19 Dec 2025	0	Requires construction to be complete.	immediate impact, and that any delay to the EcoPark South completion date can be recovered subsequently.
EfW – Demolition Complete	19 June 2030	19 June 2030	0	Requires ERF to be fully operational.	
Southern Access Road – Works Complete	14 May 2031	14 May 2031	0	Overall programme complete	



Risk Dashboard

Risk Register Summary Statistics

Summary Statistics	May-19	Jun-19	Jul-19	Aug-19	Sep-19
In-period active risks	382	381	372	372	353
Risks raised in period	4	1	5	8	6
Risks closed in-period	0	2	14	8	25
Risks Expiring Next Period	1	2	1	2	5

Risk count by RAG (score) categorisation

		Risk distribution (Probability x Impact)				
	VH	3	1	1	1	1
iiity	Н	2	12	16	15	2
Probability	M	20	30	26	15	13
Pro	L	31	51	32	25	18
	VL	3	4	1	1	0
		VL	L	M	Н	VH
		Impact				

Key risks by impact

Project	Risk Event	RAG	Mitigation Control Plan
Programme Wide	Project delivery works may impact LEL site operations beyond planned scenarios		Establish NLHPP/Operator Construction Management Plan and agree interface management procedures for on-site Contractors and Operator.
E3b (Northern Area Clearance)	Extent of sub-ground works may result in a delay to ERF site access.		Commence study to over-lay proposed ERF against existing infrastructure to determine gaps in removal. Assess alternative operational strategies to enable earlier access to Northern Area.
E4 (Utility Bridge and Corridor)	Cadent estimate for works is high level and therefore the final cost may exceed current estimates.		Complete Cadent options study and agree optimal cable route and therefore establish higher cost certainty.

Key risks by proximity (next 12 months)

Project	Risk Event	RAG	Mitigation Control Plan
E2b (Enabling Works)	Access to Transport Yard Building Area not provided on Advised Date (July 2020)		Finalise Lease with LBE and complete procurement. Investigate alternative access strategies e.g. partial access to phase 2.
E2c (Sewer Diversion)	UKPN & Cadent may fail to meet delivery programmes		Obtain programme from each statutory undertaker and agree communication protocols.
E3a (EcoPark South Construction)	Scope for southern site utilities is immature at current and may change		Produce Utilities scope/brief to inform the D&B contract and clarify Utilities risk profile for inclusion during procurement Trial pits to be completed in order to validate utility model by Mar-20.