

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: 7 SEPTEMBER 2020

SUMMARY OF REPORT:

This report provides the Programme Committee with an update on progress of the North London Heat and Power Project (NLHPP).

RECOMMENDATIONS:

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

SIGNED:  Programme Director

DATE: 25 August 2020

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. The report structure provides a narrative in the main body with a dashboard.
- 1.3. The progress data provided within the report, including the status dash board in Appendix A, reflects the status of the programme on the 26 June 2020. This is the most recent reporting period for which project-approved data is available at the time of preparing this status report to Members.
- 1.4. The previous report to the Programme Committee on 29 July 2020 provided progress data to the end of May 2020 but included a narrative update on progress to mid-July. Where significant progress updates have occurred since that date, a narrative update has been included in this report.

2. PROGRAMME DIRECTOR'S SUMMARY

- 2.1. The NLHPP programme is on track to deliver to its cost and programme objectives as defined in the agreed Programme Baseline.
- 2.2. The programme continues to focus on two key initiatives to mitigate future delay risk to the programme:
 - 2.2.1. First, the Northern Area Clearance. This is to relocate the bulky waste handling activity on the EcoPark, allowing a start on demolition of existing facilities before the new Resource Recovery Facility is completed. The project includes construction of a Temporary Bulky Waste Facility, and analysis shows off-site capacity would also be required for the project as a temporary facility could not manage all currently anticipated waste flows.
 - 2.2.2. Second, the redesign of the Sewer Diversion. This is to deconflict the programme interface with the construction of the Energetik Energy Centre on the EcoPark. Work on this is progressing well in close co-ordination with LondonEnergy Ltd (LEL) and Energetik.

- 2.3. A major element of both of these initiatives is a close examination of safe operational and construction traffic movements. Both initiatives will require a formal project decision to proceed in September 2020.
- 2.4. Of special note are the following achievements since the last report to Members;
- 2.4.1. The notification of tender for the Energy Recovery Facility (ERF) works through the Official Journal of the European Union (OJEU) has attracted considerable interest within the industry, including the sector media, with a high recorded level of companies accessing the procurement documents.
- 2.4.2. The successful tenderer for the EcoPark South Construction (EPSC) contract has been formally announced as Vinci (trading as Taylor Woodrow) and work is progressing to enable start of the contract on 1 September 2020.
- 2.4.3. Successful rescheduling of major sections of the site preparation works in positive collaboration with contractors to recover time lost due to the COVID-19 pause in construction.

Summary Programme Status

- 2.5. Since the last Member's report, providing a progress summary at mid-July 2020, the following issues related to the status of the overall programme should be noted.
- 2.6. Construction work restarted in June, after the COVID-19 safety pause, with the remobilisation of resources and implementation of new working arrangements that complied with government guidelines and the Construction Leadership Council's latest Site Operating Procedures. The work is progressing well towards enabling the start of the EPSC contract on site in January 2021 as required in the programme baseline, although many more activities are now time critical path and there may need to be some restriction of access to the Laydown Area and Eastern Access in the first few weeks of 2020.
- 2.7. Since the restart of work, the adverse impact of the introduction of COVID-19-related safe working practices on ongoing construction progress has proven to not be significant. This reflects the nature of the current work being able to accommodate social distancing. In terms of efforts to recover time lost due to the safety pause in construction, the sewer diversion enabling works has been rescheduled in order to maintain the subsequent main sewer diversion works programme and accommodate delayed completion of the Temporary Transport Yard, giving higher confidence in the programme's ability to deliver to meet subsequent programme objectives.

- 2.8. Constructive meetings have been held with Energetik who are developing the local district heating supply and will be taking heat from the ERF. They need to not only connect to the project's future heat supply but also build their energy centre in the EcoPark adjacent to the sewer diversion and EPSC work sites. An adjustment to the sewer diversion alignment and tie in point has been identified as a solution to enabling Energetik to construct their facility in parallel with the EPSC and sewer diversion.
- 2.9. The continual schedule management and development has updated the forward lookahead in the light of construction progress, and reviews of interdependencies of activities to set an updated baseline plan for bringing the ERF into service on time. This baseline will be used to assess project schedule performance in future.

Progress Highlights in Period

- 2.10. The following provides progress highlights since mid-July; the cut-off point for the previous report to the Programme Committee at end of July.
- 2.10.1. **EcoPark South Tender** - The tender evaluation for the EcoPark South contract was completed as planned and resulted in a clear result. The contract has been awarded to Vinci with a start date of 1st September 2020.
- 2.10.2. **Remobilisation of onsite construction** – plans were agreed with contractors to be able to work safely under COVID-19 conditions which enabled the instruction to be given to remobilise work, thus mitigating project delays and getting the workforce back to work.
- 2.10.3. **DNO Connection** - UKPN have completed their works outside the EcoPark that bring the electrical import/export cables up to the end of the Northern Access Road. This is a major piece of external works required for the ERF to be commissioned and its early completion reduces the risk to the programme. The final connection into the site will be completed during the ERF construction works.
- 2.10.4. **Construction Works** – Contractors have made good progress since returning to site, working safely, with less impact of COVID-19 on efficiency than expected to date. For example, the project has installed the bridge beams across the Enfield Ditch so that there is now for the first time a physical connection between the new Eastern Access road and EcoPark. This will be used service construction of the works and by the public in due course when the new Recycling Centre opens
- 2.10.5. **ERF Procurement** – A full set of tender documents for the ERF were drafted ready for final review by the team for co-ordination and subsequent issue via an OJEU notice. The OJEU notice has been issued.

- 2.10.6. **ERF Site Preparation** - The preparations for work in the ERF footprint have achieved an acceptance from the Environment Agency of the project's Ground Remediation Strategy and Controlled Water Risk Assessment. This has now allowed the submission to LB of Enfield for discharge of the applicable requirement of the DCO, which will enable the project to start work in that area.
- 2.10.7. **Heat Supply to Energetik** – Energetik have obtained planning permission for the construction of their Energy Centre to provide district heating which they are planning for the Meridian Water development. By adjusting the design of rerouting of the Chingford sewer diversion and relocation of one of the three shafts to be constructed by Barhale, Energetik will be able to bring forward the construction of their Energy Centre in the next year and work alongside the construction of the Resource Recovery Facility. The revised design of the sewer diversion has been agreed in principle by all parties. The joint team is working to close out all remaining agreements in the next period sufficiently to enable the redesign to be implemented by Barhale.
- 2.10.8. **Geographic Information System (GIS)** – Work has started to create a digital GIS model of the site which will provide a comprehensive map of existing utility services and assets which must be either diverted, protected and avoided during construction. The ongoing site investigation is providing valuable information to the GIS model.
- 2.10.9. **Apprenticeships** – After a progress hiatus due to COVID-19, the last period has seen significant progress in the apprentice/training programme. Having started the first project apprentice at the beginning of the year, Galldris will start a Groundworker apprenticeship in September, Buckingham have started two on-site apprenticeships, with the third business administration apprentice to start in the last week of August. Barhale, the contractor for the Sewer Diversion, will take over the two Buckingham apprentices once their placement on the Laydown West contract has been completed. The Project team have issued an advert inviting applications for apprenticeships arising on the EcoPark South Construction works, to draw up a candidate list for Taylor Woodrow in advance of the completion of the contract . The advert attracted interest from 300 applicants of whom 152 were from north London boroughs.
- 2.10.10. **On-site Skills training** - Galldris have commenced their on-site skills training programme: The first trainee undertook the week long course on 10 Aug. Galldris and Capital City College Training (CCCT) have confirmed all trainees will be provided with the opportunity to obtain a Construction Skills Certification Scheme (CSCS) card as part of their training placement, which will also include employability training (such as CV writing and

interview skills) led by CCCT. The CSCS card will be obtained at the start of the week in advance of going on site later in the week. Buckingham have drafted their approach to training placements, aligned with the scheme developed with Galldris.

Key Focus of Activity

- 2.11. The following aspects are priority areas for focus in the coming period:
- 2.11.1. **Measures to access the ERF site footprint** – The feasibility study of options to access the ERF site footprint as early as possible has been completed and is now being considered with an update to Members planned at the next meeting.
 - 2.11.2. **EcoPark South Construction Contract** – The award of this contract will be a step change in scale of the work under contract and the addition of a new contractor to the wider project team. Therefore, there will be a focus on establishing the right collaborative working arrangements with the contractor's team to support their successful delivery of the RRF and EcoPark House.
 - 2.11.3. **EcoPark Construction Traffic** – Site phasing plans that show how construction and waste management traffic share access in and around the EcoPark continue to be developed in detail to avoid risk of disruption and to explore and verify the feasibility of alternative sequences of construction.
 - 2.11.4. **Interface Management** – The interface management activities of the project team are being given greater attention in recognition of the increasing overlap of construction activities. The number of schedule interfaces has increased, and the risk of this causing issues is being avoided with greater and regular review of each interface. This focus includes the interfaces with statutory utility undertakers and their supporting work to the project.

3. PROJECT SUMMARY

3.1. The table below summarises the situation as reported and reviewed at the end of June.

Project	Progress in Period (June)	Activities Next Period (July)	Key focus	Next Milestones
E1a2 (Laydown Area West and Eastern Access)	Ground works and bridge piling, and procurement of welfare facilities	Confirm acceptance of design of welfare facilities and make progress with ground works; Confirm revised design for serviceable eastern access ramp so it can be used by LEL	Decisions needed to complete by end of January 2021 and hand over to EcoPark South.	Complete eastern access and welfare facilities
E1b (Northern Access)	Riverbank wall piling	Complete piling and start road construction	Maintaining construction progress	Complete construction and handover to LEL for operation
E2a (Transport Yard relocation)	Continued with construction of hard standings and offices	Continuation of construction and agreement of discharge licence from CRT	Planning handover to LEL in September	Sub lease and hand over to LEL
E2b (Sewer Diversion Enabling Works)	Mobilising site compound and demolition of LEL buildings	Clear services in Shaft A area and start construction of temporary roads	Schedule integration with Sewer Diversion	Hand over Shaft A area
E2c (Sewer Diversion Main Works)	Detailed design and review of alternative Manhole C location	Instruct change in location of Manhole C if agreed by Programme Director	Starting Shaft A works and confirming how works will integrate with EcoPark South	Start Shaft A construction
E3a (EcoPark South)	Conclusion of tender evaluation	Gain authority and award contract	Preparation for bringing on board contractor and stage one	Contract Start
E3b (Northern Area Clearance)	Authority given to procure demolition work; Feasibility of a temporary bulky waste facility	Produce phase 1 demolition tender documents; Make recommendation for temp bulky waste facility	Hand over western section to ERF EPC in October 2022, and Eastern section on March 2023	Issue ITT for phase 1 demolition; Decide how to provide temp bulky waste facility
E4 (Utility Corridor & Main Distribution Network Operator)	UKPN have completed duct for main feeder cable work to external area	Sign contract with Cadent for detailed design of gas main; Confirm procurement plan for utility civils on western road	Planning utility interfaces	Complete detailed design of gas main.

(DNO connections)				
E7 Energy Recovery Facility (ERF)	Development of EPC tender documents	Issue EPC OJEU Notice	Procurement and interfaces needed to achieve commercial service in Dec 2025	Issue OJEU Notice
E8 (Efw demolition & decommissioning)	None			
E9 (Southern Access widening)	None			

4. SCHEDULE SUMMARY

4.1. The table below summarises the situation as reported and reviewed at the end of June

Milestone	Baseline Date	Forecast Date	Deviation to Baseline (weeks)	Recovery Action
Complete works to Hawley Road Site (Relocated LEL Transport Yard)	06-Jul-20	25-Sep-20	-12	The schedule has been revised to enable the transport yard, sewer diversion to not impact the access dates for the EcoPark South Construction works which follow on. The project welfare facilities and offices are not expected to be completed in time for the start of EcoPark South by about 1 month. This is overcome by Taylor Woodrow retaining their phase 1 offices longer and retention of the use of the southern entrance to the EcoPark for 1 month longer – the impact on traffic management is being assessed in the site phasing model.
Complete Laydown Area	11-Nov-20	10-Feb-21	-11	
Start Sewer Diversion Enabling Works to Shaft A Area on site	17-Jun-20	05-Aug-20	-7	
Complete Sewer Diversion Enabling Works	23-Oct-20	11-Feb-21	-14	
Start Sewer Diversion Main Works on site	23-Sep-20	23-Sep-20	0	Taylor Woodrow have contractual commitment

Start EcoPark South Works on site (with some restrictions)	25-Jan-21	25-Jan-21	0	to the RRF operational date and baseline will be updated to reflect this. The interface is with the access to the western section of the ERF footprint. ERF tender dates have been set to accommodate the forecast dates.
Complete Sewer Diversion Work	27-Sep-21	27-Sep-21	0	
Operational Commencement of RRF	25-Oct-22	06-Dec-22	-6	
Northern Area Clearance - Remediation Complete	31-Mar-23	15-May-23	-6	The feasibility of moving LEL's bulky waste and fuel preparation operations earlier have identified a need to lease an off-site facility. A temporary facility on site is also possible but it would lack capacity to handle the potential volumes needed.
ERF – Commissioning – Take over (O&M engaged in operations)	19-Dec-25	18-Feb-26	-7	
EfW – Laydown Area Re-Instatement	19-Jun-30	10-Sep-30	-12	
Southern Access Road – Works Complete	14-May-31	16-Jul-31	-9	

4.2. The deviations to the baseline of the enabling works such as the Laydown Area and Sewer Diversions have been assessed and impacts on the start and completion of the RRF (as part of the EcoPark South Construction project) remains impacted by 6 weeks which is an improvement on 12 weeks reported previously. These dates take into account the stoppage of construction work due to COVID-19 and have been mitigated by sequencing greater overlap between enabling works and the sewer diversion and provision of temporary welfare for LEL transport operations. The later than planned completion of the Laydown Area may require temporary site offices for the EPSC contractor.

4.3. The baseline key date of ERF Take Over is to be superseded by the key dates in the ERF tender documents which specify commercial service by the end of 2025 and a start on site in October 2022.

5. RISK SUMMARY

5.1. Risk Management activity has continued through the period with project level risk reviews progressing. A risk workshop was held on the EcoPark South Construction (EPSC) to determine the current project risk position as we approach contract commencement. In addition, the NLHPP leadership participated in the quarterly programme risk review where strategic risks were discussed to update the status of ongoing mitigations and review the ranking of strategic risks.

5.2. Overall, twenty-four risks were raised during the period and thirteen closed. The majority of these risks have been raised on EPSC and relate to Odour and

Ventilation design development, interface maturity, waste supply, system integration and temporary provisions. Of the thirteen risks closed, two were relevant to the Transport Yard project (Protracted internal decisions, additional sundry items). The remaining closed risks relate to EPSC and include risks such as asset damage, sub-contractor productivity/performance, estimating uncertainty and construction quality.

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

<p>Risk description: Uncertain schedule and/or financial implications to NLHPP following recommencement of site-works. For instance, productivity impacts associated with new working arrangements.</p>	<p>Mitigation update: Leverage agile scenario modelling methods such as 4D modelling to enable quick evaluation of change, such as site-wide impacts / traffic movements / schedule interfaces and drive decision making. In addition, initiatives to evaluate how the interface between RRF and ERF can be removed to mitigate any schedule risk.</p>
<p>Risk description: Interim/temporary conditions (e.g. road diversions, temporary weighbridges etc) required to maintain LEL operations during EcoPark South Construction may not be in place pre-contract start. This will result in a delay to the Contractor.</p>	<p>Mitigation update: Close management of preceding works contracts. Continue delivery of Weighbridge procurement and build to meet EPSC schedule.</p>
<p>Risk description: Work on site conflicts with unforeseen underground services and/or assets that have the potential to cause harm/damage and/or disruption to people or operations of waste management and construction.</p>	<p>Mitigation update: Continued development on information base of underground services and their condition through non-intrusive and intrusive survey. And utilise GIS model managed to record information in a live and response manner.</p>

6. HEALTH, SAFETY AND WELLBEING

- 6.1. There have been no incidents causing harm on site in the period. However, on two occasions Galldris encountered water pipes which had not been charted on site maps and of which there was no record. The first incident caused a leak which was immediately isolated and repaired.
- 6.2. The Sewer Diversion Enabling Works construction team held a “safety stand down” for an hour on site led by Principal Contractor Galldris and attended by members of the project team. It was held outside, observing social distancing rules and reinforced and reminded everyone about how to avoid damage to underground services.
- 6.3. The second case occurred when careful excavation by hand was being undertaken but a pipe only 50cm below surface level was encountered and breached. While the pipe did not lead to the energy centre, it affected the water pressure to LEL’s demineralised water plant and required close working with LEL to ensure an appropriate and timely repair was carried out.
- 6.4. The incidents are not considered symptomatic of a lack of care. The teams frequently encounter uncharted services and deal with them successfully and safely. However, these instances demonstrate the challenge of working on the EcoPark as a brownfield site and the need for great care by our contractors. Following this latest case our contractors have updated emergency repair arrangements to minimise the risk to existing water supplies from construction activity.
- 6.5. The Laydown Area construction team held a “safety stand down” for an hour with all workers on site led by the Principal Contractor Buckingham and attended by the members of the project team. It was held outside observing social distancing and involved a discussion with the workforce on their experience working to social distancing rules. The overall feedback was that it was working well, and that people felt safe.
- 6.6. Promotion of safety-first principles has been made by more regular safety bulletins to the whole Project team, including contractors. In the last month the bulletins have addressed topics of site security, site hygiene and raising the profile of the project health, safety and wellbeing team.

7. SOCIAL VALUE

- 7.1. In the period, work with the contractors continued to restart the apprenticeship programme. On the Northern Access Works contract, Galldris are progressing with the appointment of their second apprentice. The second apprentice will be a Groundworker and the training will be delivered through the London South East Colleges Kidbrooke Construction. Interviews will be held in mid-August 2020 with

the apprentice undertaking a trial period in September 2020 and starting their course in October 2020.

- 7.2. Galldris are now (following resumption of works on site) able to accommodate trainees on-site and plans are in place to deliver these. These training placements provide a general understanding of how a construction site operates and include work shadowing on-site. Capital City College Training (CCCT) select candidates with the first training placement commencing 10 August. On the Laydown Area West contract, two out of the three planned apprentices have started work on-site as Engineering Technician apprentices. The third is due to start towards the end of August, undertaking an apprenticeship in Business Administration. Once the Engineering Technicians have completed their time on Laydown Area West, they will move onto Barhale's Sewer Diversion Works. This joined-up approach will enable the apprentices to continue their development and training and broaden their experience of the NLHPP programme.
- 7.3. Buckingham propose to deliver training placements using the College of North East London (CONEL) to deliver a week-long employability programme tailored to construction focus
- 7.4. With regard to the EcoPark South contract, due to start at the beginning of September, in order to ensure that apprentices could be taken on for the start of the academic year, and maximise their time within the project, an advertisement inviting expressions of interest for this opportunity (for construction, civil and mechanical engineering, quantity surveying and maintenance) was published by the Authority. In total just under 300 responses were received, of which 152 were from north London boroughs. The appointed contractor is now carrying out a shortlisting and appointment process, liaising with the Authority.

8. COMMUNICATIONS

- 8.1. During the period, responses were provided to the detailed deputation request document from MPs, councillors and members of the public, which were presented to the Authority meeting on 25 June. These responses reflect information which is held on the Project website, in particular through the Frequently Asked Questions (FAQ) section.
- 8.2. A press release was issued covering the Authority's launch of the procurement for the ERF construction contract. This was picked up by the Enfield Independent and the Hampstead and Highgate Express, and by Materials Recycling World.
- 8.3. A community newsletter was distributed to 28,000 homes and businesses surrounding the EcoPark. The newsletter is on the Project website and attached as an Appendix B to this report. This newsletter is provided on approximately an annual basis, with the aim of ensuring that those in the area which was the focus of

consultation in the DCO application process are kept informed of the progress of the project. Construction newsletters are sent to approximately 17,000 homes closer to the EcoPark, and the most recent of these was sent in February 2020.

- 8.4. A Policy Connect report from a committee of MPs, chaired by Professor Margaret Bates, highlighted the ongoing need for energy recovery facilities for the disposal of residual waste, and that this is the most sustainable method of disposal. In response, an article *How can the waste sector help the UK accelerate towards net zero?* by the Programme Director was submitted to and published by ENDS Waste & Bioenergy. The article looks at the information in the Policy Connect report and shows how it is in line with the NLWA's strategy to increase recycling and prevent waste through the NLHPP, along with other initiatives including low plastic zones and a deposit return scheme. It highlights the NLHPP's work to divert waste from landfill.
- 8.5. During the period, social media activity has included: technical points such as the work on deep soil stabilisation in the Northern Access Works contract; the benefits of the EcoPark South works, in providing an RRF which will increase the amount of recycling, and a new RRC on the EcoPark; and points made in the Policy Connect report referred to above, emphasising that the ERF is the most sustainable way to treat residual waste which remains after recycling.

9. GOVERNANCE

- 9.1. During the period, engagement continued with the constituent boroughs, through meetings with Directors of Finance and Environment. Particular topics during the period included the work being carried out in the project to ensure that the northern area of the EcoPark could be cleared in preparation for ERF works, as reported elsewhere on this agenda.

10. EQUALITIES IMPLICATIONS

- 10.1. There are no implications of note within this report.

11. COMMENTS OF THE LEGAL ADVISER

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

12. COMMENTS OF THE FINANCIAL ADVISER

- 12.1. The Financial Adviser has been consulted in the preparation of this report and comments have been incorporated.

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APPENDIX A DASHBOARD REPORT



Programme Committee 7th September 2020

Appendix A - NLHPP Dashboard Report





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Please note that this dashboard report and project reports contained in Appendix A of the Programme Update (Part II) reflect the most recent period-end of 26/06/2020



Programme Summary (end of June reporting period)



Completed within previous period:	Look ahead for next period:
<ul style="list-style-type: none">• ERF procurement - Delegated authority was given to commence procurement of the ERF contractor.• Northern Area Clearance - The procurement strategy was approved by members.• Weighbridge procurement - Delegations to procure and award contracts associated with temporary weighbridges were received.• Digital Development - Delegation to procure a datahub system was granted.• EcoPark South Tender - The tender evaluation for the EcoPark South contract was completed efficiently and in line with the planned timescales.	<ul style="list-style-type: none">• ERF procurement launch – publication of the OJEU notice and tender documents.• Northern Area – Feasibility study to complete for the temporary Bulky Waste Recycling Facility allowing decision to be made.• Sewer Diversion interface – confirming a suitable technical solution associated with the Sewer Diversion that improves coordination of the interface with Energetik.• H&S resources – The introduction of the new H&S resources will take place and a transition of activities to their ownership.
Not achieved in previous period:	Issues for resolution:
<ul style="list-style-type: none">• ERF tender development - The procurement publication date was delayed by 1-2 weeks to ensure that the highest possible quality of documents was delivered.• Construction – With remobilising taking place following the suspension of works, not all planned construction activities in the period were achieved. Schedule reviews are underway with the contractors to examine means to mitigate the suspension and re-mobilisation delays.	<ul style="list-style-type: none">• Contractor schedules – there is an ongoing concern with the quality and timing of contractor’s construction schedules submitted for acceptance. The NLHPP planning team are working with their contractor counterparts to ensure understanding of the requirements and reporting cycles, while escalation steps have also been made to senior representatives to ensure they have adequate specialist skills.



Project Health Check



Project	Cost		Schedule		Risk		H&S		Overall	
	In-period	Period Trend	In-period	Period Trend	In-period	Period Trend	In-period	Period Trend	In-period	Period Trend
Laydown Area (East) - E1a1	n/a		n/a		n/a		n/a		n/a	
Laydown Area (West) & Eastern Access - E1a2	●	→	●	→	●	→	●	→	●	↑
Northern Access - E1b	●	↑	●	→	●	→	●	↓	●	↑
Transport Yard - E2a	●	→	●	↓	●	→	●	→	●	↑
Sewer Diversion (Enabling Works) - E2b	●	↓	●	↓	●	→	●	↓	●	↑
Sewer Diversion (Main Works) - E2c	●	↓	●	→	●	→	●	→	●	→
EcoPark South – E3a	●	→	●	→	●	→	●	→	●	→
Northern Area Clearance – E3b	●	→	●	→	●	↑	●	→	●	→
Utility Corridor and Main DNO connections - E4	●	→	●	→	●	→	●	→	●	→
Energy Recovery Facility (ERF) - E7	●	↓	●	↓	●	→	●	→	●	→
EfW demolition and decommissioning - E8	●	→	●	→	●	→	●	→	●	→
Southern Access Widening - E9	●	→	●	→	●	→	●	→	●	→

See next two slides for key to RAG status



Project Health Check – Key (1 of 2)



Key	Cost	Schedule	Risk	Overall
	Overall Project Cost FAC*: <ul style="list-style-type: none"> Is below the Overall Project Cost Baseline by 10% or less. 	The project completion forecasted date (gate 5) is greater than 20 days prior to the baseline date.	Risks generally being closed, mitigation actions and related activities being addressed or progressed. "profile" of risk going down.	A project is assessed as green if its performance does not threaten the NLHPP's overall objective of bringing the new ERF into service at the end of 2025 or cause the NLHPP baseline budget of £1.13bn to be exceeded.
	Overall Project Cost FAC*: <ul style="list-style-type: none"> Exceeds the overall Project Cost Baseline by less than 15%, or Is below the Overall Project Cost Baseline by 10—20%. 	The project completion forecasted date (gate 5) is equal to or less than 20 days prior to the baseline date.	A mixed picture of new risks opening while others are closing. Some actions resolving, others stalled or delayed. Risk Profile remaining flat.	A project is assessed as amber if its current plans threaten the overall objective of bringing the new ERF into service at the end of 2025 or cause the NLHPP baseline budget of £1.13bn to be exceeded, but that mitigation plans are in place.
	Overall Project Cost FAC*: <ul style="list-style-type: none"> Exceeds the overall Project Cost Baseline by more than 15%, or Is below the Overall Project Cost Baseline by 20% or more. 	The project completion forecasted date (gate 5) is greater than the baseline date.	Increasing risk to the project – more risks opening than closed, mitigations and associated activities not progressing. Risk profile increasing.	A project is assessed as red if its current plans threaten the overall objective of bringing the new ERF into service at the end of 2025 or cause the NLHPP baseline budget of £1.13bn to be exceeded, but mitigation plans are either not in place or not yet finalised.

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

Projects with an overall Red status have been included in the deep-dive section of the Part II report.



Project Health Check – Key (2 of 2)



Key	Health and Safety			
	Leading Indicators	Lagging Indicators	COVID-19 Performance	Overall
	Senior leadership engagement, Positive Behaviours and Safety Observations noted and recorded.	No recorded incidents, accidents or near misses. Any issues are outside the Project’s control.	Complete compliance with CLC SOPs and additional NLHPP suggestions. Visible promotion of excellent practice.	Project will receive a Green RAG if all three indicators are green.
	Only normal scheduled HS&W advisor site visits and weekly HS&W Snapshots published.	Any recorded accident, lost time or otherwise, or occupational disease (including CV-19)	Occasional failures to comply with CLC SOPs but are promptly remedied.	Project will receive an overall Amber RAG if one or more indicators are Amber.
	None recorded	Any RIDDOR incident.	Consistent failures to comply with CLC Site Operating Procedures version 4	Project will receive a Red RAG if two or more indicators are Red

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



Schedule Dashboard



Milestone (Critical)	Baseline Date	Forecast Date	Deviation to Baseline	Interface	Recovery Plan
Complete works to Hawley Road site (Temp long term LEL Transport Yard)	06-Jul-20	25-Sep-20	-12	Enables start of enabling works to Shaft A	The schedule has been revised to enable the transport yard, sewer diversion to not impact the access dates for the EcoPark South Construction works which follow on.
Complete Laydown Area	11-Nov-20	10-Feb-21	-11	Enables new Eastern Access road to open to light traffic.	
Start Sewer Diversion Enabling Works to Shaft A Area on site	17-Jun-20	05-Aug-20	-7	Requires relocation of Transport Yard to Hawley Road	The project welfare facilities and offices are not expected to be completed in time for the start of EcoPark South by about 1 month. This is overcome by Taylor Woodrow retaining their phase 1 offices longer and retention of the use of the southern entrance to the EcoPark for 1 month longer – the impact on traffic management is being assessed in the site phasing model.
Complete Sewer Diversion Enabling Works	23-Oct-20	11-Feb-21	-14	Enables access to the Sewer Diversion Main Works contractor.	
Start Sewer Diversion Main Works on site	23-Sep-20	23-Sep-20	0	Requires enabling works to Shaft A area to be completed	
Start EcoPark South Works on site (with some restrictions)	25-Jan-21	25-Jan-21	0	Access to sewer shaft construction area not available until December 2021	Taylor Woodrow have contractual commitment to the RRF operational date and baseline will be updated to reflect this. The interface is with the access to the western section of the ERF footprint. ERF tender dates have been set to accommodate the forecast dates.
Complete Sewer Diversion work	27-Sep-21	27-Sep-21	0	Enables access to full EcoPark South work site	
Operational Commencement of RRF	25-Oct-22	06-Dec-22	-6	Enables transition of existing operations and commencement of Northern Area Clearance.	
Northern Area Clearance - Remediation Complete	31-Mar-23	15-May-23	-6	Enables the commencement of ERF construction works	
ERF – Commissioning – Take over (O&M engaged in operations)	19-Dec-25	18-Feb-26	-7	Requires construction to be complete.	The feasibility of moving LEL's bulky waste and fuel preparation operations earlier have identified a need to lease an off site facility. A temporary facility on site is also possible but it would lack capacity to handle the potential volumes needed.
EfW – Laydown Area Re-Instatement	19-Jun-30	10-Sep-30	-12	Enables new Eastern Access road to open to light traffic.	
Southern Access Road – Works Complete	14-May-31	16-Jul-31	-9	Requires relocation of Transport Yard to Hawley Road	

Note – COVID-19 has had a clear and immediate impact on the NLHPP schedule with works temporarily suspended, and the knock-on deviation from baseline for the construction works. Less clear is the longer-term impacts of working in a socially distanced environment, and broader economic slowdowns - with potential effects on resource and material availability. Over the next couple of months, this will be assessed and new assumptions developed for the NLHPP programme, at the same time as incorporating activities highlighted in section 2.9



Risk Dashboard



Risk Register Summary Statistics

Summary Statistics	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
In-period active risks	362	365	362	375	365	371
Risks raised in period	4	6	0	15	4	24
Risks closed in-period	10	3	3	2	14	19

Risk count by RAG (score) categorisation

		Risk distribution (Probability x Impact)				
Probability	VH	5	8	6	2	1
	H	0	16	21	16	2
	M	15	27	29	26	17
	L	19	32	24	16	16
	VL	13	17	11	6	1
		VL	L	M	H	VH
		Impact				

Key risks by impact

Project	Risk Event	Mitigation Control Plan
Programme Wide	Uncertain schedule and/or financial implications to NLHPP following recommencement of site-works	1) Develop agile scenario modelling by using 4D BIM to quickly understand site-wide impacts / traffic movements and improve decision making 2) Progress works to de-link ERF from RRF and mitigate any schedule impacts
E3b Northern Area Clearance (NAC)	If the EcoPark South works are delayed it will have a direct impact on NAC programme.	1) Finalise development of agreed NAC programme and evaluate alternative operational strategies to determine the feasibility of earlier access to the Northern Area.
E7 ERF	Supply of waste may be insufficient to complete Performance Guarantee Tests	1) Investigate strategies to balance inputs into the new plant and turn down operations of existing plant. 2) Evaluate impacts of seasonality with commissioning and new sources of waste.

Key risks by proximity (next 12 months)

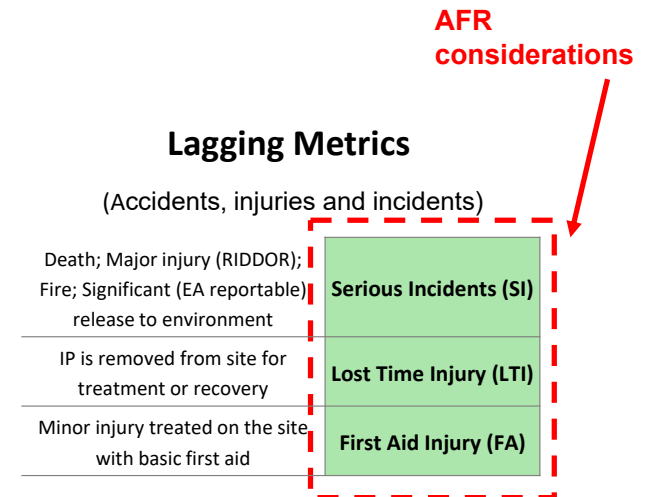
Project	Risk Event	Mitigation Control Plan
Programme Wide	Energetik may disrupt NLHPP works due to misalignments and conflicts in construction programme.	1) Close coordination to identify integrated technical solution that all parties can accept (evaluate new proposal) 2) Progress proposed technical solution on SDMW
E3a (EcoPark South Construction)	Enabling works to support operations during EPSC may not be completed in time for construction start on site.	1) Agree programme to design, procure and construct EPSC enabling works pre-contract start on site.
E3a (EcoPark South Construction)	Scope for southern site utilities is immature at current and may change	1) Trial pits to be completed in order to validate utility model and communicate new information to Contractor. 2) Acceptable approach to manage risk to be agreed and detailed through Negotiation phase of Procurement



Health, Safety & Wellbeing Dashboard (1 of 5)



Terminology	Definition	Further Explanation
Leading Metrics	Actions that help to prevent accidents, injuries and incidents	The Health & Safety Executive's (HSE) and others' research has shown that increasing awareness and noting of both good and bad health, safety and wellbeing issues by <u>any and all of</u> the workforce (leading indicators) has shown a significant effect on the reduction in lost time accidents and other untoward events (lagging indicators).
Lagging Metrics	Accidents, injuries and incidents	
Accident Frequency Rate (AFR)	$\frac{[(\text{Number of injuries in the period}) / (\text{Total hours worked during the period})] \times 1,000,000}{\text{i.e. the number of injuries per million hours worked.}}$	The AFR takes into account the first 3 lagging metrics: Serious Incident (SI), Lost Time Injury (LTI) and First Aid Injury (FA), as highlighted in an exert from the Lagging Metrics table.





Health, Safety & Wellbeing Dashboard (2 of 5)



Leading Metrics

		Period June 2020					Period May 2020	Total to Date**	
		E1A2	E1B	E2A	E2B	PCE*			
Any action or suggestion, idea, behaviour that is 'above and beyond' compliance	Positive Behaviour (PB)	4	6	4	2	0	16	5	105
Anything volunteered and not resulting from a formal assessment or audit. Positive or negative.	Safety Observation (SO)	5	2	0	0	2	9	5	61
Site visits by Senior Leadership	Leadership Engagement	1	0	0	0	0	1	0	1
Weekly site inspection visits by H&S advisors	Site Inspection Visits	5	7	5	4	2	23	10	-

		Period June 2020	Period May 2020	Total to Date*
Health, Safety and Wellbeing Alerts	HS&W Snapshots	6	4	21

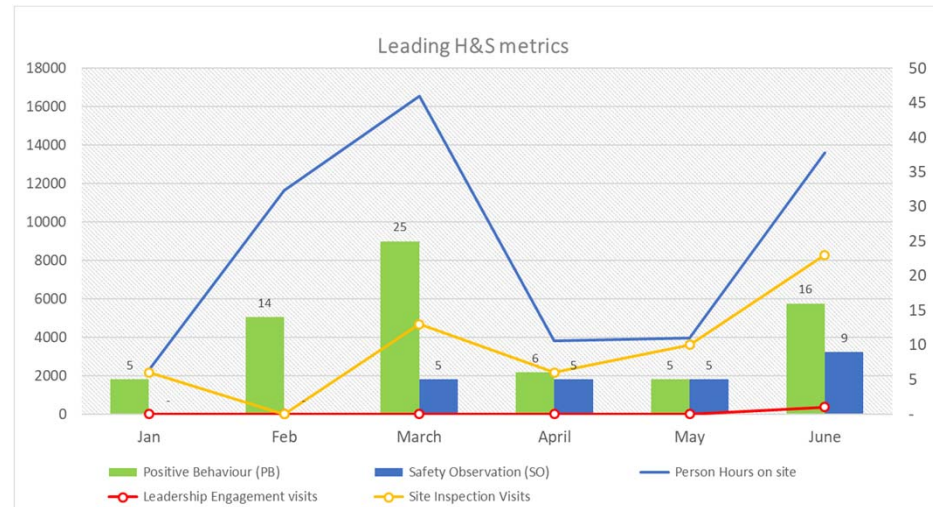


Figure represents the total hours worked on site against leading H&S metrics for each reporting period

HS&W Snapshot	Date Issued
First Aid	05 June 2020
Warning about inferior quality face masks	12 June 2020
Reminder about work reviews and risk assessments	19 June 2020
Reissue of NLHPP 'Safety First'	24 June 2020
Safety reminder	24 June 2020
Alcohol gels and car fires	25 June 2020

*Total to date: from April 2019 to the end of the reporting period, ***Construction Leadership Council Site Operating Procedures



Health, Safety & Wellbeing Dashboard (3 of 5)



Lagging Metrics	Period June 2020						Period May 2020	Total to Date**
	E1A2	E1B	E2A	E2B	PCE*	Total		
Death; Major injury (RIDDOR); Fire; Significant (EA reportable) release to environment	0	0	0	0	0	1	0	1
IP is removed from site for treatment or recovery	0	0	0	0	0	0	0	1
Minor injury treated on the site with basic first aid	0	0	0	0	0	0	0	17
An event not causing harm, but has the potential to cause injury or ill health	2	2	1	2	0	6	0	20
As RIDDOR	0	0	0	0	0	0	0	4
Something outside Project control that causes us to take action e.g. nearby fire, flood, site protest, UXB	0	1	0	0	0	1	5	35
A set of conditions or circumstances that have the potential to cause injury or ill health, including poor procedures	9	1	4	1	6	21	3	92
Abuse, physical threats or actions short of violence	0	0	0	0	0	0	0	9

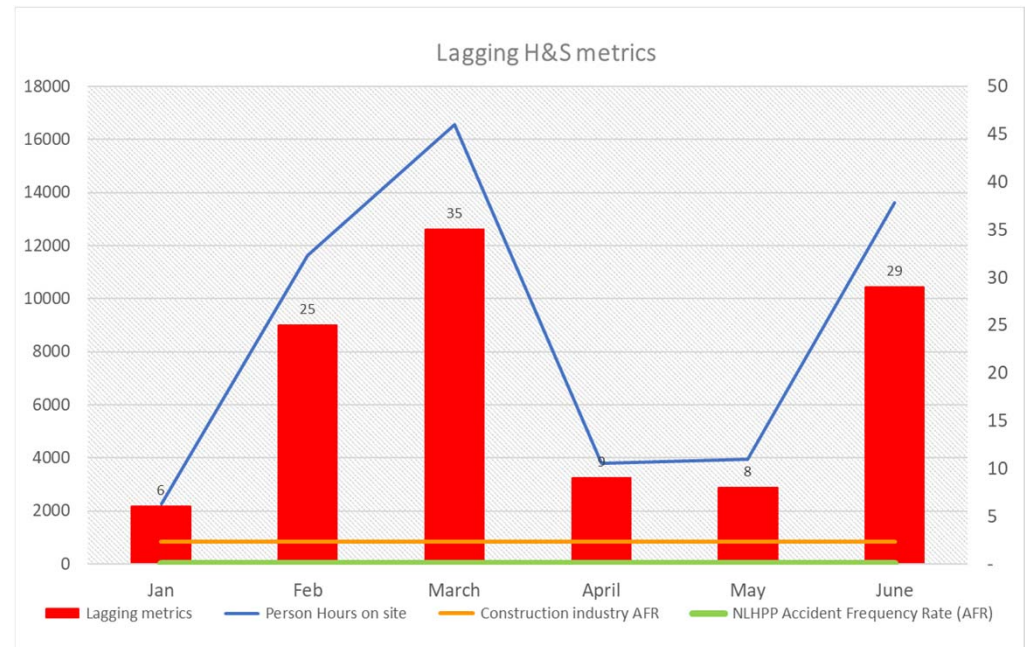


Figure represents the total hours worked on site against lagging H&S metrics for each reporting period and the NLHPP Accident Frequency Rate (AFR) comparing to the Construction industry AFR

*Total to date: from April 2019 to the end of the reporting period



Health, Safety & Wellbeing Dashboard (4 of 5)



Accident Frequency Rate (AFR^{**})

AFR for Reporting Period

NLHPP

0.00

Construction Industry

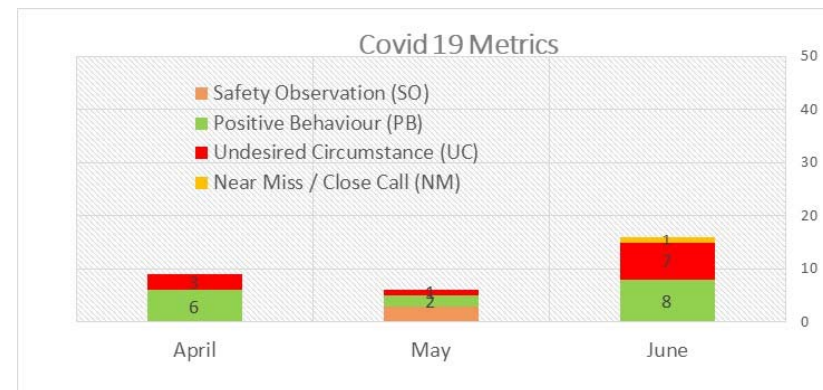
2.32

^{**} The Accident Frequency rate enables comparison of accident rates against hours worked rather than the number of accidents. The calculation is (number of accidents) / (number of hours worked on site) x 100 000. Thus, a project with 1 million hours worked and 3 LTIs would have an AFR of 0.3. The values shown above represent the AFR corresponding to the reporting period.

COVID –19 RELATED (according to CLC SOP****)

Incidents/Observations related to COVID-19 (positive, negative or observations)—already accounted for in the above incident reporting categories

	Period June 2020						Period May 2020	Total to Date** *
	E1A2	E1B	E2A	E2B	PCE*	Total		
COVID –19 related	1 (PB), 1 (UC), 1 (NM)	2 (PB)	4 (PB), 2 (UC)	1 (PB), 1 (UC)	4 (UC)	17	6	51



This figure represents the COVID-19 related metrics for each reporting period

*Total to date: from April 2019 to the end of the reporting period , ****Construction Leadership Council Site Operating Procedures



Health, Safety & Wellbeing Dashboard (5 of 5)



Examples of the identified key incidents on site, including those deemed of particular note by the Health and Safety Team for May, have been tabulated along with their respective response actions.

Site	Key Incidents on Site	Response/Action
E1A2 - Laydown West	One near miss was an unrecorded comms cable that was cut during excavations	The cable was redundant and unused. It was isolated and details recorded.
	The second near miss was a sub-contractor groundworks team who were working within 2m of one another	The contractor, Buckingham, called a stand down and reminded all of the Covid-19 precaution that were in force on the site
	An undesired circumstance report related to a range of PPE failures and a gate left unlocked and unattended	These have been addressed and closed out
E1B - Northern Access	Work being carried out on Ardra Rd to sign post speed limits was being carried out unsafely and classified as a near miss.	Work was stopped by the HS&W advisor. If work is to continue a safer option is to be adopted.
	A cast iron pipe was discovered during piling	Work was stopped until that nature of the pipe was addressed. Proper tests were carried out to conclude it was redundant and carried no services. It was safely removed and piling resumed.
E2A - Transport Yard	The single near miss was an excavation which although fenced off had significant gaps and was incomplete	Action was immediately undertaken to resolve this
E2B - Sewer Diversion Enabling works	The incident related to a black plastic mains water pipe which was cut during a search for a storm water drain	Procedures seem to have been followed, but the site team elected to cut the pipe to determine its nature. This was a breach of procedures and outside the RAMS.
	The near miss was a scaffolder twice using a ladder that wasn't tied back	Galldris to follow up and report

APPENDIX B COMMUNITY NEWSLETTER

Welcome to the NLHPP

Community NEWSLETTER



Welcome to the July 2020 community newsletter for the North London Heat and Power Project (NLHPP). Here you will find all the latest news about north London's new sustainable waste hub which we, the North London Waste Authority (NLWA), are building at the Edmonton EcoPark.

The NLHPP

The NLHPP will kickstart the green economic recovery in Enfield and create jobs, apprenticeships and training opportunities for local people. It's an investment in the green infrastructure of the future, to support our mission of preserving the

planet's resources for future generations.

The Project will deliver world-class, modern recycling and waste infrastructure to help boost north London's recycling rates. This includes a Resource Recovery Facility (RRF) with capacity to manage up to 135,000 tonnes of recyclable

material every year, as well as the first ever public recycling centre at the EcoPark. We're building a community hub where residents will be able to learn more about reducing the environmental impact of their waste. We're also building an Energy Recovery Facility (ERF) to replace the existing plant, so we can continue to keep north London's non-recyclable waste out of landfill in the future. We'll use it instead to generate low-carbon heat and power for thousands of homes and businesses.

Community engagement

We are committed to engaging with the local community. We provide ongoing updates via our Community Liaison Group meetings, newsletters, social media and email and website updates.

In February, we met with our Community Liaison Group, in April, we launched a fly-through



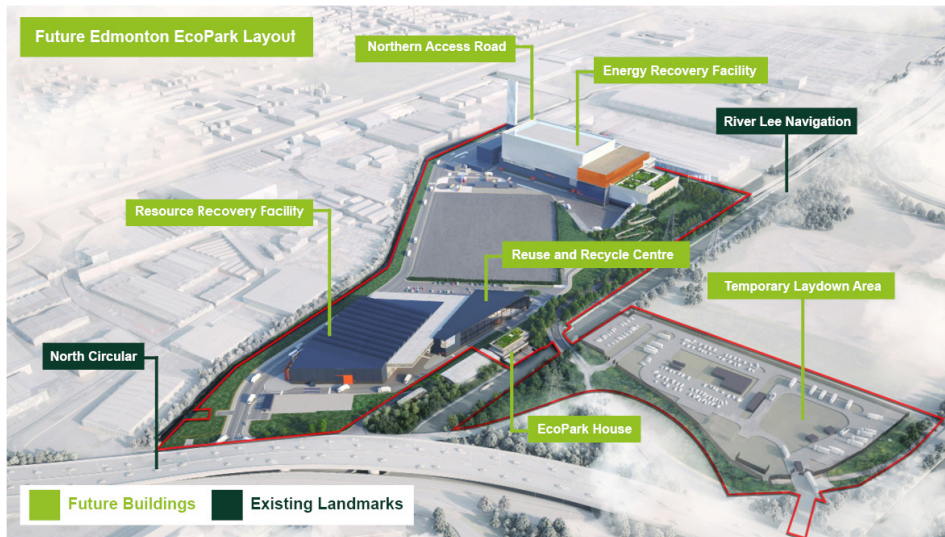
Indicative image of the Resource Recovery Facility, looking south towards the North Circular.

video to show how the finished NLHPP will look, and in June, we published a new project brochure with information about the Project. Both the fly-through video and brochure can be viewed on our website - www.northlondonheatandpower.london

During 2019 and the start of this year, we held community roadshows in and around Edmonton to share information about the Project and answer questions. We've adapted in response to COVID-19, and we're producing regular video updates on our website. This includes interviews with members of our construction team and a look ahead at key Project milestones.

We continue to keep our communities updated via Twitter and Facebook. We also provide useful links to recycling and waste prevention activities run by the NLWA, as well as the latest news on north London's reuse and recycling centres.

Project update



Site Works

Enabling works have been progressing rapidly to get the site ready for construction. Works on the **Laydown Area** and **Northern Access** sites are well underway. New works have started to relocate the current EcoPark transport yard to **Hawley Road**, to make way for a sewer diversion. This highly skilled engineering work will redirect the **Angel and Chingford sewers**, so we can build our new recycling facilities.

In the coming months we plan to appoint a contractor to **build the new recycling facilities**. This will unlock exciting **apprenticeship opportunities** for local people in civil, mechanical and electrical engineering. Read the Build

Your Future section to find out how to get involved.

We have also just **launched the procurement process to let bidders come forward to build the new ERF**. This is a crucial step forward for our Project, which will generate **even more apprenticeship, job and local business opportunities**.

We have responded positively and safely to the challenges of COVID-19. After a brief pause in construction, we have fully remobilised in line with Public Health England guidance.

Sites have been adapted to abide by social distancing rules and to keep the workforce safe. You can find out more about our safe working practices in our remobilisation video update on our website.



Piling works taking place at the Northern Access Road



Safety First

Safety remains our number one priority. We are committed to delivering a Project that puts the health, safety and wellbeing of everyone involved in the Project and those working and living in the local community at the forefront of everything we do.

Our 'Safety First' culture underpins this identity across all parts of the Project. Now more than ever, as a result of COVID-19, we are working to ensure the highest safety standards across our sites. Our contractors have increased safety measures such as introducing more hand washing stations and PPE for the workforce, socially distanced offices and canteens and overnight accommodation for people who are unable to travel to and from work safely.



Build Your Future

As part of our commitment to provide at least 100 apprenticeships, we're pleased to announce that we've launched the next stage of recruitment for our apprenticeship programme, to work on delivering the Resource Recovery Facility.

Registration is open on our website **www.northlondonheatandpower.london/buildyourfuture** and the deadline for applications is **7 August 2020**.

