

**NORTH LONDON WASTE AUTHORITY**

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

**REPORT OF:** PROGRAMME DIRECTOR

**FOR SUBMISSION TO:** AUTHORITY MEETING

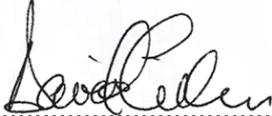
**DATE:** 25 JUNE 2020

**SUMMARY OF REPORT:**

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

**RECOMMENDATIONS:**

The Authority Meeting is recommended to note the contents of the report.

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

**DATE:** 15 June 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 (RRC), 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 at the end of the April 2020 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. The NLHPP programme is on track to deliver to its cost and programme objectives.
- 2.2. The project team is working on two major programme initiatives which aim to mitigate the uncertainty introduced into the future programme due to the COVID-19 pandemic and its potential impact on the supply chain.
- 2.3. The initiatives are focused on removing dependencies between the start and finish of key elements of work; the sewer diversion, the RRF and the ERF, helping to overcome the uncertain impact of uncertain future productivity levels in the construction industry and preserving the end-date for the project. The initiatives will be fully tested to verify the cost-benefit of the programme savings anticipated.
- 2.4. The programme has adapted well to the immediate impact of COVID-19. The off-site work has proceeded to plan in the areas of design, procurement, and governance through digital collaboration, maintaining the necessary programme at a busy time for the project.
- 2.5. The negotiations for the EcoPark South tenders were handled efficiently and completed to time, with the Invitation to Submit Final Tenders being issued with an expected return date at the end of June.
- 2.6. The preparation for commencement of the ERF procurement is on plan with the team adapting at short notice to remote working but still able to successfully complete the second Market Information Day; the independent project assurance review; and maintain the programme for the production of tender documentation.
- 2.7. After pausing the active construction sites in March, an instruction to remobilise was issued in May after a thorough review by the task force (including the project team,

contractors and advisors) to determine safe systems of work for protection of the workforce under COVID-19 pandemic conditions. A wide range of measures have been implemented, addressing hygiene, safe travel to and from site, working practices to adopt social distancing, training and induction of workers, and many modifications to the site establishment including;

- 2.7.1. A one-way system for pedestrians.
  - 2.7.2. Additional portable sanitary facilities
  - 2.7.3. Installation of hand wash stations.
  - 2.7.4. Face visors for security personnel.
  - 2.7.5. Installation of bunkers providing overnight accommodation for travelling workers.
- 2.8. Construction activity started at the beginning of June and the project team are working with the contractors to review the programmes of work to minimise the impact of delay and the knock-on effect on the remainder of the programme.

#### **Project Progress Highlights In-Period**

- 2.9. The below are notable recent achievements:
- 2.9.1. The framework agreement was awarded for the Site-Wide intrusive surveys. The scope of the framework is to gain further data and improved understanding of the ground conditions of the EcoPark, particularly associated with existing utility and service infrastructure. This will inform future design and construction activities and therefore reduce risk to the programme.
  - 2.9.2. Approval was received from London Borough of (LB) Enfield for the discharge of DCO obligations associated with the ERF. This was a major success and removes a further risk to delivery prior to commencing procurement.
  - 2.9.3. Also associated with the ERF project, an external assurance review was completed by Fichtner. This was a key part of the programme's broader assurance practices. The reviewers provided some valuable feedback and their recommendations are being addressed by the project team. Full detail is included in the ERF decision paper el in Part II of this agenda.
  - 2.9.4. An agreement has been reached that closes the remaining commercial matters associated with the Laydown East contract and the final account statement issued. This contract will now move into the defects liability period (12 months in duration).
  - 2.9.5. Following the decision in March to temporarily suspend site works, the team instructed the contractors to complete a safe and secure shut-down of all activities. This was achieved in April. Weekly site audits by the NLHPP team have continued to monitor the sites during the suspension,

and to date these have shown that the contractors have maintained the sites securely.

- 2.9.6. Development of a remobilisation plan has been ongoing in parallel, *via* a newly established task force, led by the Project Delivery Lead. This has considered the criteria to be met that will allow the programme to recommence on site, and what is needed to maintain safe working in the continuing COVID-19 context. Remobilisation plans and schedules have been developed by the contractors and a decision by the Programme Director to return to site was made on the 15 May.

## **Procurement**

- 2.10. The second Market Information Day (MID) supporting the ERF procurement was delivered in virtual form via a pre-prepared video. The preparation of the tender documentation has progressed to plan with the objective of completing prior to the start of the issue of the OJEU notice and start of the supplier prequalification process in July.
- 2.11. The evaluation of the initial tender has completed for the EcoPark South contract and negotiations have completed early in the May period. This was followed by an invitation to submit final tenders (ISFT) with tender return at the end of June.
- 2.12. The evaluation report has completed for the site-wide Intrusive Surveys, and the contract award was announced in May.
- 2.13. Four smaller procurements are now required:
- 2.13.1. A review of digital requirements for the programme, as part of developing the NLHPP Digital Strategy, has identified a series of recommendations. A priority is to implement a programme “data hub” system which would provide a live and accessible location for all project status information and records including a “single version of the truth” for cost, schedule and risk data. This will also act as the reporting tool, simplifying the administrative work in collecting and compiling periodic reports.
- 2.13.2. The demolition of the western section of the EcoPark Northern Area under the footprint of the future ERF, consisting of the disused In-Vessel Composting (IVC) facility.
- 2.13.3. Two contracts to deliver temporary weighbridges within the EcoPark. This is to maintain operational capability during the construction of the new RRF facility, as the existing weighbridges will no longer be accessible. One contract is for the civil works required, and the second will be the weighbridge systems themselves.
- 2.14. A feasibility study has commenced to examine the temporary relocation of the current bulky waste facility within the EcoPark. This is part of the Northern Area Clearance works (Project E3b) and the aim is to complete the decommissioning and demolition of the existing asset earlier than planned, and ultimately allowing earlier access to the ERF contractor. The feasibility study is expected to complete at the end of June.

- 2.15. The external assurance review of the ERF project, carried out by Fichtner, has completed. The purpose of the review was to determine the readiness of the project to proceed through to the next phase, based on the completeness of development to date and the arrangements for execution of the next phase. The review has determined that, subject to a limited number of actions having been completed, the NLHPP should be sufficiently well developed to meet its delivery programme and objectives within the current market.

#### Design

- 2.16. The technical specifications for the ERF contract have continued to be drafted and are moving into the review stage.
- 2.17. An odour sampling study is to be commissioned in association with the EcoPark South project for those waste streams to be managed within the Recycling and Fuel Preparation Facility (RFPF). The study will collect from existing LEL sites data relating to odour and chemical composition. The data will enable the successful EcoPark South Contractor to design the RFPF's integrated odour and ventilation system.
- 2.18. Within the enabling works projects a key milestone was reached for the sewer diversion main works (project E2c), with the concept design being agreed with Thames Water, as the ultimate asset owner.

#### **Key Focus of Activity**

- 2.19. The list below includes some of the key issues being managed at the current time:
- 2.19.1. Schedule - The team are currently reviewing the overall schedule baseline, to confirm that the current timeframe is achievable. The exercise will continue over the next couple of months, with a fully updated baseline anticipated around the end of the July period. The review relates to:
- 2.19.2. Immediate impacts of the suspension of site works - revised schedules are awaited from the site preparation works contractors and discussions will explore opportunities to mitigate the delay due to suspension of work due to COVID-19.
- 2.19.3. Energetik Energy Centre interface – positive meetings between parties have taken place to deconflict the respective construction programmes, and these are expected to lead to a mutually beneficial solution for enabling both parties to work together on the EcoPark site. This is likely to have an impact on the phasing of the NLHPP works, with a minor cost increase but significant mitigation of risk for the future work.
- 2.19.4. Northern Area Clearance feasibility study to provide early access to the site for the ERF project– if this confirms an achievable opportunity to delink the start of the ERF from completion of the RRF, this may require inclusion of the new temporary bulky waste facility scope and incorporation of the associated build into the project baseline schedule.

- 2.19.5. EcoPark South and ERF – more detailed development of construction schedules in recent periods provide more detailed understanding of the timescales.
- 2.19.6. Statutory Undertakers — Engagement with these third parties continues to be challenging for project managers and contractors. Effects of COVID-19 delays could increase the risk to some critical activities as the undertakers also suspend activities. An approach to managing this and engaging with these organisations has been agreed within the NLHPP team and will now be enacted with the external parties.
- 2.19.7. Energetik—Current lack of agreement on a coordinated working arrangement elevates the risks to the sewer diversion and EcoPark South contract works. A new design solution has been proposed that supports improved coordination, and this is being examined at the current time by the design team and LEL as site operators. Dialogue at a senior level is continuing on a weekly basis.

### **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.

<b>Project</b>	<b>Progress in Period (April)</b>	<b>Activities Next Period (May)</b>	<b>Key focus</b>	<b>Next Milestones</b>
<b>E1a1 (Laydown Area East)</b>	Commercial negotiations continued to resolution.	None.	Not applicable	Not applicable
<b>E1a2 (Laydown Area West and Eastern Access)</b>	Suspension of work, engagement on remobilisation plan.	All construction works: Planning to re-mobilise with measures in place to work safely.	Working safely under COVID-19 and compliance with CLC Site Operating Procedure Revising construction schedules to reflect the impact of COVID-19.	Complete site works
<b>E1b (Northern Access)</b>	Suspension of work, engagement on remobilisation plan.			
<b>E2a (Transport Yard relocation)</b>	Suspension of work, engagement on remobilisation plan.			
<b>E2b (Sewer Diversion Enabling Works)</b>	Suspension of work, engagement on remobilisation plan.			
<b>E2c (Sewer Diversion Main Works)</b>	Design development and agreement with Thames Water.	Detailed design coordination.	Construction phase coordination with Energetik activities.	Mobilise on site
<b>E3a (EcoPark South)</b>	Procurement tender evaluation and negotiation stage commenced.	Negotiation completion and next tender stage.	Assessing the potential impacts of COVID-19 on the proposed contract period	Award of contract
<b>E3b (Northern Area Clearance)</b>	Feasibility study commenced.	Feasibility study delivery and progression towards re-baseline.	Confirmation of scope through feasibility study, and definition of cost and schedule.	Pre-procurement stage
<b>E4 (Utility Corridor and Main Distribution)</b>	Evaluation completed for intrusive survey tender.	Re-baseline of scope for the project, to incorporate associated site-wide work.	Gas main design Utilities western corridor design	Gas main design

<b>Network Operator (DNO) connections)</b>				
<b>E7 Energy Recovery Facility (ERF)</b>	Procurement of assurance reviewer, Market Information Day.	Assurance Review, Tender document continued development.	Preparation of tender documents	Commence Procurement
<b>E8 (EfW demolition and decommissioning) and E9 (Southern Access widening)</b>	No action.	Consideration of kick-off timescale.	Not applicable	Not applicable

#### 4. SCHEDULE SUMMARY

- 4.1. The following milestones (reflecting significant points in delivery and key activities on the critical path) have been identified and highlighted for Authority awareness. Progress against them, and where appropriate, mitigation plans to recover identified delays are presented. A negative deviation indicates a forecast date later than the baseline.
- 4.2. The forecast dates do not currently include the programme initiatives currently being worked on and are, at present, a direct reflection of the impact of the pausing of “in-flight” site preparation construction sites due to COVID-19.

Milestone	Baseline Date	Forecast Date	Deviation to Baseline	Recovery Action
Complete works to Hawley Road Site (Relocated LEL Transport Yard)	06-Jul-20	28-Sep-20	-12 weeks	The deviation has arisen from the pause in construction activities and reflects the impact of demobilisation and remobilisation. The NLHPP COVID-19 construction task force is working on how to recover time.
Complete Laydown Area	11-Nov-20	20-Jan-21	-8 weeks	
Start Sewer Diversion Enabling Works to Shaft A Area on site	25-Jun-20	24-Sep-20	-13 weeks	
Complete Sewer Diversion Enabling Works	02-Oct-20	21-Jan-21	-14 weeks	
Start Sewer Diversion Main Works on site	23-Sep-20	22-Jan-21	-15 weeks	This is dependent on the preceding works above.
Start EcoPark South Works on site (with some restrictions)	25-Jan-21	25-Jan-21	0 weeks	
Complete Sewer Diversion Work	27-Sep-21	28-Jan-22	-16 weeks	
Operational Commencement of RRF	25-Oct-22	12-Apr-23	-22 weeks	
Northern Area Clearance - Remediation Complete	31-Mar-23	18-Sep-23	-23 weeks	This is dependent on the preceding works above.
ERF – Commissioning – Take over (O&M engaged in operations)	19-Dec-25	26-Jun-26	-24 weeks	
EfW – Laydown Area Re-Instatement	19-Jun-30	25-Feb-31	-34 weeks	The feasibility of a Bulky Waste temporary facility on site would remove dependency on the operational of the RRF.
Southern Access Road – Works Complete	14-May-31	31-Dec-31	-31 weeks	

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.

## 5. RISK SUMMARY

- 5.1. Risk Management activity has continued both at Project and Programme level. At Project level, focus has been on the uncertainties associated with delivering projects in a new environment and consequential schedule, budget, safety or reputational impacts. At Programme level, the NLHPP Leadership have reviewed programme wide risks with focus on ensuring relevance and suitability of mitigation strategies in a changing delivery environment. In addition, the Leadership team have looked to enhance our approach to Risk Management with initial discussions held on Recovery Strategies in the event a major risk was to impact.
- 5.2. Summarising change to the April risk profile, three risks were closed. These include two risks under Transport Yard (E2a) relating to Thames Water Utilities Ltd (TWUL) and LB Enfield which have been closed following receipt of key approvals. In addition, under Laydown Area East (E1A1), a risk pertaining to negotiations has closed following agreement of final contract sum.
- 5.3. COVID-19 continues to pose significant health and well-being risk and has the potential to significantly reduce team productivity. Mitigating initiatives have continued with strict adherence to travel arrangements and regular safety communications. In addition, significant work has progressed on plans for safe remobilisation. Further mitigating activities to minimise productivity impacts have progressed with new features adopted on Microsoft Teams to ensure communications and decision-making continue effectively.
- 5.4. 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><b>Risk description:</b> Uncertain schedule and/or financial implications to NLHPP following recommencement of site-works. For instance, productivity impacts associated with new working arrangements.</p>	<p><b>Mitigation update:</b> The team are adopting more 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 RRF and ERF can be de-link to mitigate any schedule risk.</p>
<p><b>Risk description:</b> 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><b>Mitigation update:</b> Design and scheduling of temporary works is underway to allow their procurement and construction in alignment with EcoPark South construction activities.</p>

<p><b>Risk description:</b> Overlap between NLHPP works and Energetik may give rise to new interfaces / site conflicts during construction which may result in disruption to NLHPP works.</p>	<p><b>Mitigation update:</b> Known interfaces are being actively managed with significant involvement from the Sewer Main Works. Close coordination to identify an integrated technical solution that all parties can accept is underway. However, if a solution cannot be agreed, escalation through NLWA, Enfield and Energetik will be required.</p>
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## 6. HEALTH, SAFETY AND WELL-BEING (HS&W)

- 6.1. COVID-19 has again dominated the Health, Safety and Wellbeing Team (HS&W) work this period. The focus was on planning a safe, temporary closure of the sites, and developing protocols for subsequent monitoring, to ensure that they remained safe and secure. LEL have been heavily engaged in this, and took the lead in the activities associated with the Sewer Diversion Enabling Works (E2b) as these, unlike the other projects, are taking place within the EcoPark boundary. This allows them to maintain better security against the spread of COVID-19 on their operational site.
- 6.2. The contractors on all sites were able to quickly respond to and adopt the Site Operating Procedures issued by the Construction Leadership Council (CLC) both in the original form and in the two subsequent versions. CLC have also distributed guidance on the measures to be adopted for the safe closure and maintenance of closed/suspended sites which NLHPP has adopted.
- 6.3. There are plans to undertake some non-intrusive surveys on the EcoPark in the next period and these are either topographical or ground penetrating radar. The HS&W team are engaging with the engineers and contractors for these to ensure that they too are carried out safely and in an appropriate manner to minimise COVID-19 risks. More broadly, there will be a focussed effort in re-visiting contractor Risk Assessments and Method Statements (RAMS) to ensure that they continue to meet the expected safety standards, while accommodating all aspects of COVID-19 management.
- 6.4. Work has continued in developing the Health, Safety and Wellbeing Management Plan and associated assurance documents. These have been presented to the leadership team and are currently under review before final approval is sought.
- 6.5. A Health Safety and Wellbeing culture survey has now been completed and follow-up one-to-one interviews are taking place. Preliminary results will follow the interviews and the data will allow the programme to understand its “baseline” culture from which to build our objectives, and to identify any immediate actions which need to take place.

## 7. SOCIAL VALUE

- 7.1. The appointment of apprentices and provision of training on existing contracts was put on hold due to COVID-19 restrictions but is now restarting in conjunction with

the return to site. Officers are working with contractors to ensure that reasonable strategies are being put in place to allow these obligations to be delivered.

- 7.2. With regard to the Northern Access Works, Galldris are looking to progress with their decision on their second apprentice; they have a preferred candidate but are not in a position to make an offer until another round of interviews has taken place, expected in early July, and they have met the training provider (Skills4Stem). Galldris' current strategy for training placements, is to deliver these in July once staff have returned to the office. This may be delayed because there is some uncertainty in the sourcing of suitable candidates largely due to job centres being closed as a result of COVID-19 restrictions. Galldris are progressing this in liaison with the classroom based training provider (CCCT) and considering how to mitigate the risks associated with the delivery of training placements in relation to social distancing measures and travel to work.
- 7.3. Discussions have also been held with Barhale who are due to start work on the sewer diversion on site in September. They are currently progressing with the recruitment of their two required apprenticeships which are likely to be civil engineering apprenticeships. Barhale have chosen to procure the apprenticeships via Evolve (the Construction Industry Training Board's Shared Apprentice Scheme) and are working with them to confirm the job descriptions and establish a process for recruitment and advertising. Barhale are proposing to develop an approach to training placements once work has started on-site and the restrictions relating to COVID-19 are better understood.
- 7.4. Delivery of social value obligations is also being progressed on the Laydown West Contract. Buckingham are planning to deliver their three apprenticeships using Evolve and have received CVs for potential candidates, with a process expected to lead to appointment of the apprentices in July. Buckingham have secured a training provider for the training placements, who will provide candidates with training for a CSCS (Construction Skills Certification Scheme) card and will make provisions to allow the test for the CSCS card to be taken within the training placement. Securing these cards means that trainees can go on site with the necessary health and safety awareness, and gain relevant experience. The plan for training placements is also being developed, in discussion with A Fairer Chance, a Community Interest Company with the objective to reduce worklessness across the UK's priority groups, who include those of importance in the area, such as the long term unemployed and NEETS (young people not in employment, education or training).
- 7.5. As schools are also beginning to open up and preparing for students to return to the classroom, contact will be made with LB Enfield and the pilot schools who showed an initial interest in the schools programme to get an understanding on the content of the schools programme and how the schools programme can be delivered most effectively.

## **8. COMMUNICATIONS**

- 8.1. Social media activity on NLHPPs twitter account increased over April and included more collaboration with wider NLWA communications. After construction on the sites paused, more content was shared from WiseUpToWaste's account as the

focus during lockdown was on essential workers and key services the Authority delivers. Eighteen posts were posted on the NLHPP twitter feed in April gaining around 9,500 impressions. More tips for residents to consider about their waste during lockdown will be shared from NLWAs accounts., including content about the reopening of recycling centres across north London. During this time plans are forming to focus on the key successes NLHPP has achieved during construction so far and in the local community. These successes will be shared on social media alongside updates to the community about remobilisation.

8.2. On 21 April a reply was sent by the Chair on behalf of the Authority to a letter from Extinction Rebellion groups in the seven boroughs. The groups had written opposing the NLHPP, and proposing that the project should be paused and reviewed. The response set out thoroughly that project is a major asset for north London's communities, delivering vital public investment in recycling infrastructure and preventing hugely environmentally damaging increases in landfill use in the future. Pausing would therefore adversely affect north London's response to the Climate Emergency. In addition to explaining the benefits of the project, how it aligns with the promotion of the circular economy and the reasons why alternative technologies are unproven and unreliable, the letter called on Extinction Rebellion to work with the NLWA and the boroughs in areas of common interest, such as the vital practical and campaigning work to reduce waste and increase recycling for the benefit of the planet and future generations. The letter issued in advance of Earth Day

8.3. Digital video content used during the market information webinar was well received by the market and a similar approach is planned to engage with the Community Liaison Group. Videos will be created to provide a short update on the plans to remobilise the construction site, a general NLHPP overview and more information about the waste prevention teams outreach activity in the community.

## **9. GOVERNANCE**

9.1. In this period, the Government passed legislation to allow meetings which are required to be held in public to be held remotely. This will be implemented for the June Authority meeting. For these meetings to be effective, the public must be able to see and hear the Part I proceedings, and deputations can be taken if requested.

## **10. EQUALITIES IMPLICATIONS**

10.1. There are no direct equality implications of this report. However, the impact of COVID-19 on recruitment for apprentices, and separately, on the communication paths open to the programme will require review by the respective teams to ensure that opportunities and messages respectively do not become restricted.

## **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.

### **Contact officer:**

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## **APPENDIX A: DASHBOARD REPORT**



# Authority Meeting 25 June 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 2) reflect the most recent period-end of 24/04/2020



# Programme Summary (end of April reporting period)



Completed within previous period:	Look ahead for next period:
<ul style="list-style-type: none"> <li>• <b>Construction Activities</b> – safe shutdown of the live construction sites and transition to monitoring for safety and security.</li> <li>• <b>Remobilisation planning</b> – Task Force established with remit to deliver a plan to define how and when to restart construction activities safely.</li> <li>• <b>ERF Market Engagement</b> – The second market information day (MID) was broadcast via pre-prepared video.</li> <li>• <b>Odour load Study</b> – An odour sampling study is to be commissioned in association with the EcoPark South project for those waste streams to be managed within the Recycling and Fuel Preparation Facility (RFPF). The study will collect from existing LEL sites data relating to odour and chemical composition. The data will enable the successful EcoPark South Contractor to design the RFPF’s integrated odour and ventilation system.</li> <li>• <b>Sewer Diversion</b> – The concept design was agreed with Thames Water (who will be the ultimate asset owner).</li> <li>• <b>Carbon Offsetting</b> – a report was completed and provided to the NLWA on the options to address carbon dioxide emissions from the future ERF plant. Recommendations are being reviewed.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Digital Development</b> – approval to procure a “data hub” system.</li> <li>• <b>Northern Area Clearance</b> – further development of the feasibility study to accommodate a temporary bulky waste facility on the north of the EcoPark.</li> <li>• <b>Cadent</b> – purging and decommissioning of a redundant gas main on site which will remove a significant constraint to our future works.</li> </ul>
Not achieved in previous period:	Issues for resolution:
<ul style="list-style-type: none"> <li>• <b>Construction</b> – with the suspension of site works taking effect, a number of construction activities planned for the period have been postponed and will be rescheduled as part of the remobilisation plan.</li> <li>• <b>Apprentices</b> – plans have likewise been put on hold for apprentice introduction by contractors, although plans to restart are being examined.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Statutory Undertakers</b> - Engagement with these third parties continues to be challenging for project managers and contractors.</li> <li>• <b>Energetik</b> - lack of agreement on a coordinated working arrangement continues to leave risks to the sewer diversion and EcoPark South contract works, however, a new design solution has been proposed that supports improved coordination</li> <li>• <b>Finalisation of the Laydown East contract</b> – agreement has now been reached and the final accounts and contract completion processes are now being progressed.</li> </ul>



# Project Health Check



Project	Cost		Schedule		Risk		H&S		Overall	
	In-period	Period Trend								
Laydown Area (East) - E1a1	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 page for key to RAG status



# 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
↓	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 July 2020	28 September 2020	-12 weeks	Enables start of enabling works to Shaft A	The deviation has arisen from the pause in construction activities and reflects the impact of demobilisation and remobilisation. The NLHPP COVID-19 construction task force is working on how to recover time, but it is uncertain what further impact on production efficiency we will see.
Complete Laydown Area	11 November 2020	20 January 2021	-8 weeks	Enables new Eastern Access road to open to light traffic.	
Start Sewer Diversion Enabling Works to Shaft A Area on site	25 June 2020	24 September 2020	-13 weeks	Requires relocation of Transport Yard to Hawley Road	
Complete Sewer Diversion Enabling Works	02 October 2020	21 January 2021	-14 weeks	Enables access to the Sewer Diversion Main Works contractor.	
Start Sewer Diversion Main Works on site	23 September 2020	22 January 2021	-15 weeks	Requires enabling works to Shaft A area to be completed	This is dependent on the preceding works above.
Start EcoPark South Works on site (with some restrictions)	25 January 2021	25 January 2021	0 weeks	Access to sewer shaft construction area not available until December 2021	
Complete Sewer Diversion work	27 September 2021	28 January 2022	-16 weeks	Enables access to full EcoPark South work site	
Operational Commencement of RRF	25 October 2022	12 April 2023	-22 weeks	Enables transition of existing operations and commencement of Northern Area Clearance.	This is dependent on the preceding works above.  The feasibility of a Bulky Waste temporary facility on site would remove dependency on the operational of the RRF.
Northern Area Clearance - Remediation Complete	31 March 2023	18 September 2023	-23 weeks	Enables the commencement of ERF construction works	
ERF – Commissioning – Take over (O&M engaged in operations)	19 December 2025	26 January 2026	-24 weeks	Requires construction to be complete.	
EFW – Laydown Area Re-Instatement	19 June 2030	25 February 2031	-34 weeks	Enables new Eastern Access road to open to light traffic.	
Southern Access Road – Works Complete	14 May 2031	31 December 2031	-31 weeks	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	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20
<b>In-period active risks</b>	353	354	368	362	365	362
Risks raised in period	7	3	24	4	6	0
Risks closed in-period	0	2	10	10	3	3
Risks Expiring Next Period	4	1	9	5	4	0

## Risk count by RAG (score) categorisation

		Risk distribution (Probability x Impact)				
Probability	VH	7	8	1	1	1
	H	4	14	20	15	2
	M	13	28	22	17	15
	L	28	34	28	18	15
	VL	13	14	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 strategy 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 and ERF.	1) Finalise development of agreed NAC programme and evaluate alternative operational strategies to determine the feasibility of earlier access to the Northern Area.
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) If a technical solution can not be accepted, escalation through NLWA, Enfield and Energetik will be required.

## Key risks by proximity (next 12 months)

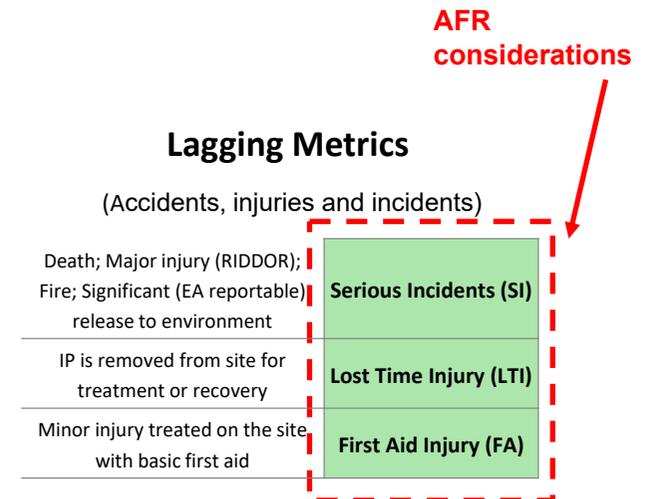
Project	Risk Event	Mitigation Control Plan
E2b (Enabling Works)	Access to Transport Yard Building Area not provided on Advised Date (July 2020)	1) Implement change to site access strategy to achieve partial access to phase 2.
E3a (EcoPark South Construction)	Enabling works to support operations during 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
<b>Leading Metrics</b>	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).
<b>Lagging Metrics</b>	Accidents, injuries and incidents	
<b>Accident Frequency Rate (AFR)</b>	$\left[ \frac{\text{Number of injuries in the period}}{\text{Total hours worked during the period}} \right] \times 1,000,000$ <p>i.e. the number of injuries per million hours worked.</p>	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

(Actions that help to prevent accidents, injuries and incidents)

Any action or suggestion, idea, behaviour that is 'above and beyond' compliance

Anything volunteered and not resulting from a formal assessment or audit. Positive or negative.

Site visits by Senior Leadership

Weekly site inspection visits by H&S advisors

	Period April 2020					Period March 2020	Total to Date*
	E1A2	E1B	E2A	E2B	Total		
<b>Positive Behaviour (PB)</b>	3	3	0	0	6	25	84
<b>Safety Observation (SO)</b>	1	2	2	0	5	5	47
<b>Leadership Engagement</b>	0	0	0	0	0	0	0
<b>Site inspection visits</b>	2	2	2	0	6	4	-

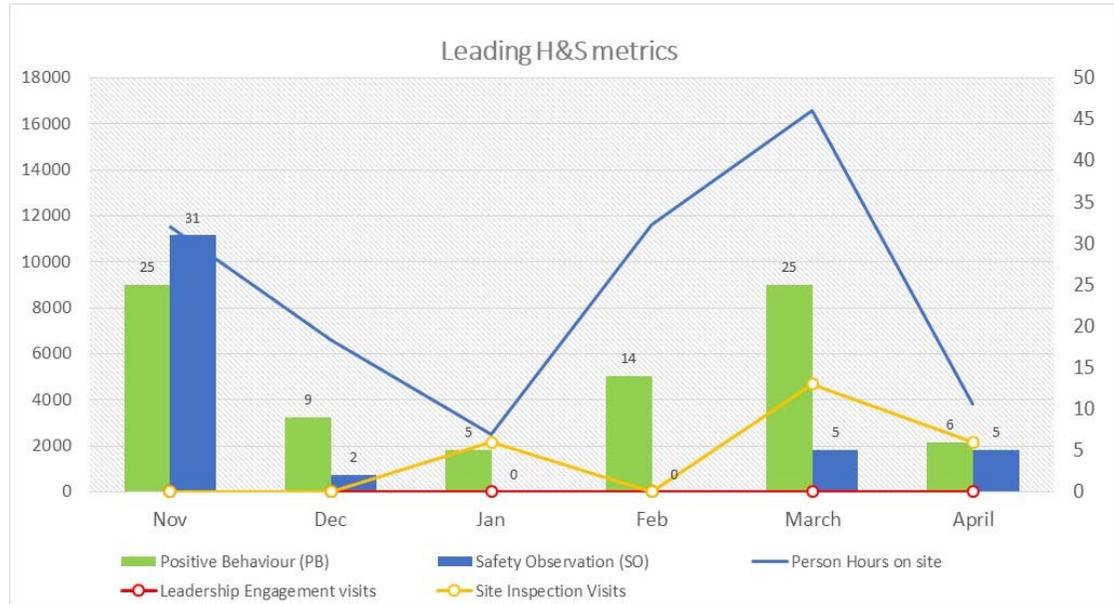


Figure represents the total hours worked on site against leading H&S metrics for each reporting period

Health, Safety and Wellbeing Alerts

	Period April 2020	Period March 2020	Total to Date*
<b>HS&amp;W Snapshots</b>	4	4	11

HS&W Snapshot	Date Issued
Piling	06 April 2020
Giant Hogweed	14 April 2020
Fitting and Wearing a Safety Mask	20 April 2020
COVID-19 Safety Alert	24 April 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 (Accidents, injuries and incidents)	Period April 2020					Period March 2020	Total to Date*
	E1A2	E1B	E2A	E2B	Total		
Death; Major injury (RIDDOR); Fire; Significant (EA reportable) release to environment	<b>Serious Incidents (SI)</b>	0	0	0	0	0	0
IP is removed from site for treatment or recovery	<b>Lost Time Injury (LTI)</b>	0	0	0	0	0	1
Minor injury treated on the site with basic first aid	<b>First Aid Injury (FA)</b>	0	0	0	0	0	17
An event not causing harm, but has the potential to cause injury or ill health	<b>Near Miss / Close Call (NM)</b>	0	0	0	0	1	14
As RIDDOR	<b>Dangerous Occurrence (DO)</b>	0	0	0	0	0	4
Something outside Project control that causes us to take action e.g. nearby fire, flood, site protest, UXB	<b>External Event with Impact (EXT)</b>	3	3	0	0	3	29
A set of conditions or circumstances that have the potential to cause injury or ill health, including poor procedures	<b>Undesired Circumstance (UC)</b>	3	0	0	0	31	69
Abuse, physical threats or actions short of violence	<b>Threatening Behaviour (TB)</b>	0	0	0	0	0	0

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

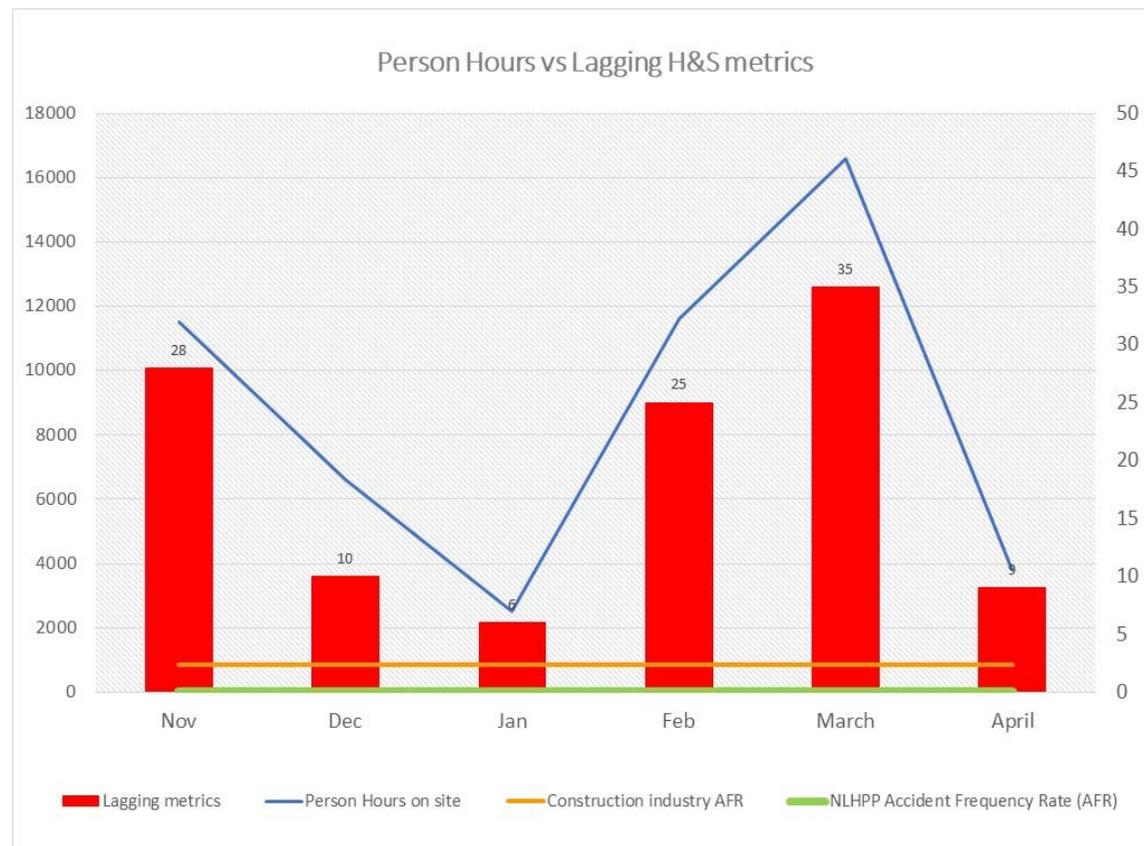


Figure represents the total hours worked on site against lagging H&S metrics for each reporting period and the NLPP Accident Frequency Rate (AFR) comparing to the Construction industry AFR



# Health, Safety & Wellbeing Dashboard (4 of 5)



## Accident Frequency Rate (AFR<sup>\*\*</sup>)

AFR for Reporting Period

NLHPP

0.00

Construction Industry

2.32

<sup>\*\*</sup> 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<sup>\*\*\*</sup>)

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

	Period April 2020					Period March 2020	Total to Date*
	E1A2	E1B	E2A	E2B	Total		
<b>COVID –19 related</b>	4	3	2	0	9 (6PB, 3UC)	19	26

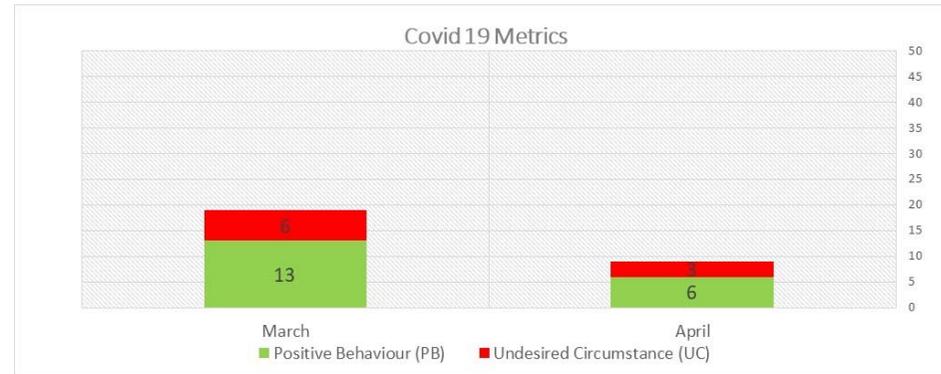


Figure represents the COVID-19 related metrics for each reporting period

\*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 April, have been tabulated along with their respective response actions.

Site	Key Incidents on Site	Response/Action
<b>E1A2 - Laydown West:</b> 3(PB), 3(UC), 3(EXT), 1(SO)	(PB) COVID-19 arrangements continue to improve.	Hand wash station at gate; social distancing measures in place; office space reconfigured; efficient cleaning regime. Contractor requested to monitor social distancing within cabins, especially for meetings.
	(EXT) Security on Lee Parkway	Contractors erected robust hoarding at both ends of the road, which has been effective in deterring public access to the site. There has been one security breach where an item of equipment was stolen. Site is being monitored by security patrol.
	(EXT) Security from the river Lee navigation	Heras fence strengthened and added to along the towpath to prevent access to a shallow excavation. Also barriers added to pontoon in river.
<b>E1B - Northern Access:</b> 3(EXT), 3(PB), 2(SO)	(PB) COVID-19 arrangements	Cabins and welfare have been improved, so that social distancing can be assured. Measures include limiting number of people in cabin at any one time, staggering arrival and departure times, additional cleaning regime and allocation of office space. Contractor thinking ahead for remobilisation arrangements, including additional welfare.
	(EXT) Site security between compound and main site.	Pedestrian way has now been blocked to prevent public access leading to site premises.
	(SO) Giant Hogweed growth along river bank	Some growth along bank area near the main gate of site and possible at other locations. Arrangements are being made for the contractor to come in to complete the 2-step process of clearing the growth, of which the first step has now been completed.
<b>E2A - Transport Yard:</b> 2(SO)	No activities and site remains secure and in good order.	
<b>E2B - Enabling works</b>	Visit carried out at the beginning of April assured us that the site was securely hoarded and in a safe condition.	
	Unable to enter LEL property during the rest of April. LEL has offered to undertake safety inspections around the perimeter.	

**APPENDIX B: NORTHERN AREA CLEARANCE WESTERN AND EASTERN SECTION**

# Northern Area Clearance

