

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: 15 MARCH 2021

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 Committee is recommended to note the contents of the report.



SIGNED: Programme Director

DATE: 3 MARCH 2021

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 dashboard in Appendix A, reflects the status of the programme on the 29 January 2021. This is the most recent reporting period for which project-approved data is available at the time of preparing this status report to Members. Where significant progress updates have occurred since this date, a narrative update has been included in this report.

2. PROGRAMME DIRECTOR'S SUMMARY

Summary Programme Status

- 2.1. The Project remains on track to deliver to programme and cost objectives as agreed in the March 2019 baseline.
- 2.2. The Project team and contractors continue to work very effectively under COVID-19 working restrictions. The design and management work of the extensive Project team involving multiple organisations, whilst subject to enforced remote working, has been well served by the focus on digital collaboration tools from the outset of the Project delivery phase.
- 2.3. Since the start of Rapid Antigen Testing on the 11 January 2021, the appointed healthcare provider has tested to date a total number of 450 essential workers on site. The weekly testing numbers will increase to an average of 175 over the next few weeks, as construction activity increases on the EcoPark. The deployment of the various lines of defence centred around weekly testing; wearable proximity monitors; safe distancing between working bubbles; travel planning; restriction of site presence to essential workers; and enhanced hygiene, has proven very effective in avoiding transmission of the virus amongst the workforce and minimising time lost. No positive cases have been reported in the last two weeks

and no time has been lost due to isolation requirements. The Project will continue to monitor the need for such precautions through the weekly COVID-19 Taskforce meetings.

- 2.4. A key achievement within the reporting period is the readiness for approval, by the Programme Director of the Notice to Proceed with the construction stage of the EcoPark South Contract (EPSC). Taylor Woodrow will commence bulk earthworks excavation at the beginning of March which will see a significant change to the landscape at the EcoPark. Galldris, the Enfield-based contractor, will be continuing their extensive involvement with the Project by carrying out the earthwork activities as subcontractor to Taylor Woodrow.
- 2.5. Another achievement has been the Project's timely closure of the Eastern Diversion Road to free the footprint for Taylor Woodrow's construction of the RRF to commence. This necessitated the commissioning of the newly constructed Eastern Access Road and bridges which now form the only access to the EcoPark for light traffic. Whilst seemingly a modest construction milestone, this timely achievement is the culmination of considerable teamwork between many parties and is representative of the detailed planning and delivery of key dependencies between elements of the programme, needed to maintain safe and reliable traffic movements within the EcoPark as the various construction sites develop.
- 2.6. The Project progress is also characterised by successful activity across a range of work-fronts aimed at enabling delivery of the major works packages; both the EPSC and the ERF. The Project is now well advanced with its site preparatory works programme, seeing the recent completion of the construction work for the Northern Access and the Sewer Diversion Enabling Works. The Laydown Area construction will soon complete, providing Taylor Woodrow with a site logistics base in support of the EPSC. The progress in accordance with the programme for the main sewer diversion, the relocation of weighbridges, and the start of the northern area demolition work also points to the extensive construction activity being successfully managed across the EcoPark.
- 2.7. The Project team, LEL and the contractors have worked together very effectively to expedite the many dependencies and interfaces between these projects and the waste management operations to keep the programme on track to deliver to programme. Given the contained nature of working on the operational EcoPark site, deconflicting activities to release working areas to construction contractors, together with safe access and egress to the sites, has been a challenge successfully overcome by effective teamwork.
- 2.8. The management of interfaces between work sites and waste management operations will remain a challenge to the delivery of the programme. It is overseen by the Site Working Group and weekly co-ordination meetings.

- 2.9. Examples of programme challenges that the Project is working through include the co-ordination of construction activity on adjacent sites for the RRF project and Energetik's construction of the Energy Centre associated with the Meridian Water district heating; and the requirement for a future outage at the EfW plant associated with switchgear replacement. Much of the required co-ordination is associated with aligning build sequences, site access arrangement, and traffic movements. It is unrealistic to develop detailed solutions for these potential conflicts far in advance, but the teams are proving highly effective at working together to identify optimum solutions that minimise the adverse impact to all parties.

Current Key Activities

- 2.10. Whilst the Project team address a wide range of management activities commensurate with a programme of this magnitude and challenge, a major focus of attention is associated with the readiness to increase construction activity on the EcoPark in connection with the RRF. Construction management related preparations are wide-ranging, involving careful planning of traffic movements and routes; security arrangements; mobilisation of the increased workforce; finalising welfare facilities and safety inductions. The Project construction management team are kept busy, working in close co-operation with LEL, contractors and advisors, to expedite this significant change in working arrangements at the EcoPark.
- 2.11. Attention is focused on the lead-up to the significant milestone on the Sewer Diversion programme associated with the arrival on site of the Tunnel Boring Machines (TBM's) at the end of March. As part of the Project's plan to promote Science, Technology, Engineering and Mathematics (STEM) subjects as educational choices for local young people through the schools outreach programme, Barhale will ask local schools to help them name the TBM's, as is traditional in the tunnelling industry, with the aim of generating interest in this unusual civil engineering activity.
- 2.12. Off site, the Project team for the ERF continue to support the tender process in preparation for the initial tender returns on 9 April 2021. The procurement team are deploying a training programme for all Project personnel participating in the tender evaluation process aimed at efficient execution of the evaluation whilst continuing to work remotely and strict compliance with procurement regulations.

3. PROJECT DELIVERY SUMMARY

- 3.1. Despite the continuation of high rates of infection with COVID-19 and the national lockdown the work on site has continued to make good progress and remain a healthy and safe environment. Our protection measures against the transmission of COVID-19 remain in place and are constantly reviewed to ensure the project is

using exemplar practices, both on site and enabling people to work effectively from home.

- 3.2. The aerial view of the EcoPark shown below has been marked up with features referenced in this Section.



- 3.3. Construction continues to progress well and in accordance with the baseline programme. The recent technical difficulties associated with the reconstruction of Lee Park Way, to provide the new Eastern Access to the EcoPark, have been successfully resolved.
- 3.4. The Project has taken possession of most of the southern portion of the EcoPark for the construction of the Resource Recovery Facility (RRF). Segregating this area from waste management operations has been achieved through a sustained joint effort of the team working with LEL and the Principal Contractors, Taylor Woodrow, Barhale and Galldris. This has involved the careful planning of changes to traffic and pedestrian routes, co-ordination of construction areas and removal of underground service obstructions.
- 3.5. The team has verified the readiness of the EcoPark South Construction contract to proceed to its next stage following the successful completion of the initial phase of Early Contractor Involvement (ECI) and approval of the Notice to Proceed. This has been a collaborative effort between the Project team and the appointed contractor Taylor Woodrow, resulting in a clear and comprehensive agreement on the scope, cost, and schedule for the next stage of the works. The ECI work provides an excellent platform from which to deliver the works with confidence.

- 3.6. In the northern section of the EcoPark, demolition of the existing but redundant waste management facilities has started with the mobilisation of the contractor, DSM Demolition. This is the first step in a complex sequence of ground clearance and adjustment to waste management operations that are needed to reliably provide a clear site to the future ERF contractor in 2022.
- 3.7. The modular project offices and welfare facilities in the Laydown Area are in the process of being taken over by Taylor Woodrow as their site office for the design and construction of the RRF and EcoPark House. The associated parking facilities are shared with LEL and other project contractors, enabling people to minimise the use of public transport in the current COVID-19 conditions.
- 3.8. In preparation for the tunnel boring for the sewer diversion, Barhale have completed the construction of two 10m deep shafts and have started the excavation for a third.
- 3.9. The detailed step-by-step planning of changes to traffic routes in the EcoPark to enable construction to progress has continued to be done in close collaboration with LEL and project contractors. By carefully considering logistical needs, a sequence of traffic routes has been agreed that separates construction and non-construction traffic in areas of high construction volume. This not only reduces safety risks but also enables efficient working for construction and waste operations alike.
- 3.10. New weighbridges have been installed to north of the EfW to replace the current ones near the southern entrance in March when they are to be demolished to make way for the new RRF.
- 3.11. The team is working closely with Energetik who are going to be constructing their District Heating Energy Centre in the EcoPark, adjacent to the construction of the RRF. The co-ordination exercise aims to identify the optimum construction sequence and plan for both facilities where construction programmes overlap over the next 18 months.
- 3.12. A current “Health Check” summary of project performance is included at Appendix A, together with a milestone summary report current at the end of the January reporting period. The following paragraphs provide a project-by-project summary of progress on site.

Laydown Area and Eastern Access (Project E1a2)

- 3.13. Despite a week of cold weather delay in early February construction work has made progress on site towards completion of the Eastern Access road at the end of February when it will be used to link the Laydown Area and Welfare to the construction sites in the EcoPark. The photograph below shows the newly surfaced

Lee Park Way with the new EcoPark eastern entrance on the left. The photograph shows the white lining operation.



- 3.14. The Laydown Area and Welfare offices have continued to be handed over and are being put to their intended use as the construction office base for Taylor Woodrow who are designing and building the RRF and EcoPark House.
- 3.15. The Laydown Area discharges surface water drainage into the Lee Navigation is attenuated by underground storage tanks to protect the environment. These attenuation tanks have now been completed and the photograph below shows one of the tanks from the inside prior to testing and use.



Northern Access (Deephams Farm Road) (Project E1b)

- 3.16. Deephams Farm Road is in use as access for construction traffic servicing the northern area demolition with use by waste management operations to follow in March when the new weighbridges come into operation.

Sewer Diversion Enabling Works (Project E2b)

- 3.17. The clearing of services in preparation for the construction of the shafts for tunnelling has been completed.

Sewer Diversion Main Works (Project E2c)

- 3.18. The contractor Barhale is preparing the concrete thrust blocks off which the Tunnel Boring Machines will drive the new sewers. Tunnelling will drive from shaft A in two directions towards shafts B and C.
- 3.19. The excavation for the shaft for shaft B has been completed and shaft C is in progress.
- 3.20. The photograph below shows the preparations for the start of tunnel boring in shaft A



- 3.21. The photograph below shows the excavation and formation of the shaft for Manhole B in progress. It shows the method of construction and the use of a sheet piled coffer dam to form the excavation in which the manhole is constructed using concrete segments. These segments can be seen under construction.



EcoPark South (Project E3a)

- 3.22. The Project team have assessed and verified the readiness to issue the Notice to Proceed to the contractor Taylor Woodrow. Notice to Proceed marks the start of the second stage of the Design and Build contract and confirms the agreed design of the works, programme, management arrangements and the target construction cost.
- 3.23. Taylor Woodrow has mobilised site operations with the erection of site fencing. Final preparations are underway to break ground and start the excavations for the foundations and reduction in the existing ground level.
- 3.24. The weekly meetings to co-ordinate Taylor Woodrow's construction with that of the sewer diversion by Barhale and the District Heating Energy Centre by Energetik, continues to resolve schedule interfaces to achieve the RRF completion dates. The open sharing of construction plans and innovative thinking by all concerned is enabling optimal solutions to be identified where overlaps occur.

- 3.25. The photograph below shows the initial temporary mesh fencing erected to secure the work whilst the long-term site boundary fence is put up. The work going on in the background is the removal of redundant buildings on site.



Northern Area Clearance (Project E3b)

- 3.26. The demolition of the redundant facilities in the western side of the future ERF footprint has been started by DSM Demolition.
- 3.27. The photograph below shows the inside of the redundant In Vessel Composting building which is one of the first structures to be demolished.



- 3.28. The outline design for the temporary Bulky Waste and Fuel Preparation facility has been finalised to enable its detailed design and construction in 2021. Providing this facility to LEL to operate enables the ERF construction to start on time in October 2022 on the footprint of the current Bulky Waste and Fuel Preparation plant.

Utility Corridor & Main Distribution Network Operator (DNO) connections (Project E4)

- 3.29. The detailed design of the future incoming gas supply main and wayleave agreements for the shortest route continues to be progressed by Cadent. Savills are assisting the Authority with the negotiation of wayleaves. Alternative routes have been identified if negotiations are not successful.
- 3.30. The co-ordination of detailed utilities master planning continues to benefit from survey works being done on site by Galldris to verify the position of existing services assumed in the overall design.

Energy Recovery Facility (ERF) (Project E7)

- 3.31. As reported previously the shortlisted organisations continue to work on their initial solutions which are due to be submitted to the Authority by 9 April 2021. Their initial solutions became the subject of Competitive Dialogue leading to finalising solutions for assessment and a recommendation for an award of contract in December.

Energy from Waste (EfW) demolition & decommissioning (Project E8) and Southern Access Widening (Project E9)

- 3.32. On the basis that this work follows the completion of the ERF after 2028, there has been no further work on these projects in the period.

4. HEALTH, SAFETY & WELLBEING

- 4.1. This summary considers an overview of the Health, Safety and Wellbeing (HSW) outcomes from the January 2021 period and early February 2021 up to the time of writing.

Health, Safety and Wellbeing Performance

- 4.2. Zero serious or loss time incidents have been reported, with no near misses or reportable incidents.
- 4.3. The continuing COVID-19 lockdown and increasing rates of infection pose an increased risk in the period and beyond. The personnel on-site proximity tracking technology continues through its trial period, well received by management and workers alike. In addition, rapid-antigen testing continues to be provided for all site workers across the programme. These processes have assisted in identifying only four positive COVID-19 cases in 2021 at the time of writing, with the necessary isolations of other workers where applicable in accordance with the government guidelines. These robust measures provide for several lines of defence and have set

the NLHPP programme as industry leaders in this regard, with the measures we have implemented being called for as standard from government by leading construction industry bodies & organisations.

- 4.4. Independent site audits continue to be undertaken by the NLHPP HSW Assurance manager and have yielded good levels of compliance across 4 sites and 14 audits in the period. The lowest compliance level reported at 93%. As a general rule, comparative scoring ranges are:
 - 4.4.1. Greater than 89% - Very good level of compliance on a well-managed site,
 - 4.4.2. 60% to 89% - Room for a number of improvements,
 - 4.4.3. Less than 60% - Poorly managed non-compliant site.
- 4.5. As previously reported, 11 January 2021 saw an incident relating to a NLHPP construction vehicle undertaking prohibited access to an operational LEL route in the north of the site. This included by-passing an LEL barrier system in place to segregate high risk operations of plant and machinery. In the current period, following the full investigation, lessons learnt from the incident have led to NLHPP preparations for a “Safety Stand Down” in February, where the dangers and hazards of logistics on an operable waste management facility will be reinforced at site level.
- 4.6. Further engagement across the construction workforce onsite to promote the Safety First culture on the program has highlighted the importance of knowing designated routes for different transport methods (including walking) to various areas of the site, which have been designed to reduce conflict points. This has been badged as “know your route” and communicated ahead of planned changes to the site traffic management and was implemented in posters, health, safety and wellbeing snapshots and the internal bulletin ‘Team Energy’.

Health, Safety and Wellbeing Management

- 4.7. In addition to day-to-day health and safety management, development work continues in health, safety & wellbeing through the business cases that have been put forward for further development in digital engagement and health and safety design risk management. Final proposals are being developed for interactive digital screens to be installed at the project hub and welfare positions, with the online collaborative design risk management tool being implemented across the projects with training to be provided imminently.
- 4.8. There is ongoing development of the NLHPP Wellbeing 4 Life strategy under the NLHPP Safety First principle, including a 12-month strategy and communication programme for 2021. The purpose of this development work and provision to the programme is to enhance wellbeing and mental health awareness, promote it and

work with the programme partners to ensure the wellbeing vision of the project is achieved.

- 4.9. The new “HSW Asite Module” reporting system has been completed following testing and development of the output dashboards. The success of the system will be monitored over the coming months with further improvements & additions where the need is identified. The outputs from the system can now be used with confidence to inform future health, safety and wellbeing initiatives, campaigns, and communications in the pursuance of zero harm through the life of the programme.
- 4.10. Weekly HSW “snapshots” have continued to be communicated to the programme across a range of HSW topics relevant to the environment and operations being undertaken at site level. The purpose of these snapshots is to raise topical awareness of all those involved with the project in relation to health, safety and wellbeing.

5. RISK SUMMARY

- 5.1. The regular review of risks has recently focussed more on identifying opportunities in addition to the work done on addressing threats. Having established a highly capable project team and supply chain the collective team is able to identify and respond to opportunities that improve the efficiency of delivery and its integration with stakeholders such as LEL and Energetik.
- 5.2. The migration of the risk register to the central Datahub as part of the digital common data environment is enabling greater engagement across the project team with the risk profile and its management of threats and opportunities.
- 5.3. The detailed scheduling of construction work has looked at opportunities to schedule work to coincide with LEL’s planned maintenance to take advantage of being able to take possession of parts of the EcoPark road network for short periods.
- 5.4. Key aspects of the risk environment are being successfully managed, with progress relating to the successful mitigation of risks in EcoPark South (project E3a), Northern Area Clearance (project E3b) and at the programme level. Notable developments are reductions in the delay impacts of ground related risks occurring (contaminated ground and ground water) due to ongoing surveys and a reduction in traffic/phasing disruption risks across various projects due to the ongoing works (use of the current site phasing plans and dynamic traffic models) of the Site Working Group.
- 5.5. The following risks continue to be either key “high-impact” risks, i.e. having significant schedule and/or cost impact or key “proximity” risks, i.e. they will either occur or require significant mitigating actions in the next 6 months.

- 5.5.1. The market response to the ERF procurement may be inadequate resulting in a time delay needed to revise the procurement which would have associated reputational impacts. This is currently being mitigated by efficient management of the procurement process, including prompt and informative responses to queries raised by bidders.
- 5.5.2. The exchange rate could have adverse effects on contract prices for the ERF. Ongoing mitigations include regular forecasting with additional mitigations related to early procurement of orders and multi-currency account being explored further.
- 5.5.3. The risk that programme interfaces with LEL operations may significantly impact construction beyond known constraints remains. The output from traffic modelling is increasing confidence around plans to ensure that EcoPark traffic is always within capacity of access and egress infrastructure. There is also continuous engagement between the programme and LEL to take advantage of planned downtime to undertake critical works and minimise disruption.
- 5.5.4. The risk that works on site may clash with unforeseen underground services and/or assets continues. Mitigations actions in progress include an accumulation of information of underground services and their condition through non-intrusive and intrusive surveys, utilisation of NLHPP Geographic Information System (GIS) model to capture and present relevant information in accessible ways and the monitoring of contactors permitting process to verify latest information and appropriate methodology. As part of the contingency plan, the programme has also set up a working arrangement that will provide a quick response, for identification of service owners and status encountered.

6. SOCIAL VALUE

- 6.1. The project is on track in delivering the Social Value programme and is continuing to deliver benefits to the local community. Most notably, Galldris have delivered an on-site skills placement which allowed a trainee, who already had carried out relevant pre-onsite training, get experience of working on a construction site as well as the day- to-day activities on site. Following their placement, the trainee expressed how much they valued the opportunity to get the onsite experience and see the different roles on-site. The trainee has also conveyed that their interest in working within the construction sector has increased along with their confidence in finding onward employment.
- 6.2. The project continues to monitor performance against targets and are pushing forward with progress against targets for local labour and expenditure with local businesses, ensuring that opportunities are being offered to the local community.

Over the month of January 27% of the workforce on site was from the local area and 13% of spend had been within the local area.

- 6.3. A project Apprenticeship Forum has been instigated, providing a platform for contractors working on the NLHPP to come together and discuss any queries relating to apprenticeships as well as any wider social value queries. The Apprenticeship Forum is a platform that has been developed to ensure that the benefits of social value activities that are being delivered are meaningful. Two Forums have now taken place, with representatives from the two contractors already on site attending to be able to share progress on their apprentices and how they were adapting to the national COVID-19 restrictions.
- 6.4. Following further engagement with London Borough Enfield it is likely that the delayed schools programme will now be rolled out in the summer term in order to ensure that the schools get the maximum benefit from the programme. The planned topics, which have been agreed with the teachers, are recycling and waste, the energy from waste process, delivery of a large-scale construction project and careers insights. These topics will provide students an insight into the NLHPP and what it will deliver as well as exploring careers within the waste management and construction sectors.

7. COMMUNICATION

- 7.1. Engagement with the local community and key stakeholders has been a key area of work for the communications team in February. The community newsletter being issued to 28,000 homes surrounding Edmonton EcoPark and is attached in Appendix B and the bi-monthly newsletter to all north London Members of Parliament at the end of the month is attached in Appendix C. These updates to the community have included a focus on the heat supply agreement with Energetik and LondonEnergy, construction works starting for the EcoPark South Construction and Barhale's progress on the Sewer Diversion Works.
- 7.2. The second virtual Community Liaison Group is planned for 25 February where local representatives of the community and business can meet and discuss matters that are important to those who live and work locally. This group is also engaged in activity with the social value team for one-to-one interviews to find out more about the local needs and priorities which NLHPP, working with our construction contractors, can help meet.
- 7.3. In collaboration with Taylor Woodrow and Build Enfield the NLHPP has also promoted local job opportunities by sharing links through the NLHPP social media channels and website for local people to submit their CV's to Build Enfield if they want to join the project as part of Taylor Woodrow's workforce. This has particularly focussed on aiding those from disadvantaged backgrounds into employment. Taylor Woodrow are also progressing plans for engaging local

suppliers and businesses on the opportunities available through a 'Meet the Buyer' Event.

- 7.4. Press activity has focused on a positive thought leadership piece about the implementation of COVID-19 practices on the construction sites with emphasis on the successful implementation of antigen testing and the trial for a wearable track and trace system. Press continues to be monitored and misinformation is addressed through social media and press statements. In February this includes the response to a Telegraph article on energy from waste facilities which was not related to the NLHPP, but which was addressed to reinforce the context of how the article applies to the NLHPP. The response was shared on social media and issued to key contacts in each of NLWA's constituent borough's including council leaders, Members of Parliament and communications colleagues. A copy can be viewed on the NLHPP website here:
<http://www.northlondonheatandpower.london/news/nlwa-response-to-articles-in-the-telegraph-and-sourcematerial-on-04-02-21/>

8. EQUALITIES IMPLICATIONS

- 8.1. There are no impacts on equality to be noted arising from the content of this report.

9. COMMENTS OF THE LEGAL ADVISER

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

10. COMMENTS OF THE FINANCIAL ADVISER

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

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APPENDIX A PROGRAMME SUMMARY



Contents	#
Project Health Check	3
Project Health Check - Key	4
Schedule Dashboard	5
Health, Safety and Wellbeing Dashboard	6

Note:

- 1. Project Health Check is current at mid-February**
- 2. Schedule and Health, Safety & Wellbeing Summary current at end of January reporting period**

Project Health Check (at mid-February)

Project	Cost		Schedule		Risk		HSW		NLHPP Impact	
	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		Completed	
Laydown Area (West) & Eastern Access - E1a2	●	→	●	→	●	↑	●	→	●	↑
Northern Access - E1b	n/a		n/a		n/a		n/a		Completed	
Transport Yard - E2a	n/a		n/a		n/a		n/a		Completed	
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	n/a		n/a		n/a		n/a		n/a	
Southern Access Widening - E9	n/a		n/a		n/a		n/a		n/a	

See next slide for key to RAG status

Project Health Check – Key

Key	Cost	Schedule	Risk	HSW	NLHPP Impact
●	Is on or below the Overall Project Cost Baseline	When the project completion date is on time or early	No unknown risks and low uncertainty within the risk environment	No recorded incidents, accidents or near misses. Any issues are outside the Project's control. Senior leadership engagement, Positive Behaviours and Safety Observations noted and recorded.	If there is no adverse impact on the ability if the NLHPP to deliver on time and within its budget.
●	Increase in known costs or risk of exceeding the Overall Project Cost Baseline	One of more project milestone is late by more than a day	Newly identified risks with some impact to the risk environment in the period	Rise in recorded accidents, lost time or otherwise, or occupational diseases. Normal scheduled HS&W advisor site visits and weekly	If the project has the potential to adversely impact the ability of the NLHPP to deliver on time and within its budget.
●	Unexpected costs arisen likely to cause the Overall Project Cost Baseline to be exceeded	A project critical path milestone is late	High uncertainty within the risk environment identified by their qualitative RAG impact rating (cost, time, reputation)	Any RIDDOR incident or consistent failures to comply with CLC Site Operating Procedures version 4	If the performance of the project is going to impact the NLHPP bringing ERF into service on time or capital cost being exceeded.

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 (at end of January)



Milestone (Critical)	Baseline Date	Forecast Date	Deviation to Baseline Programme (weeks)	Recovery Plan
Complete works to Hawley Road site (Temp long term LEL Transport Yard)	25-Sep-20	09-Nov-20	-6	Complete
Complete Laydown Area	11-Nov-20	26-Feb-21	-14	BGCL installation of the Welfare/Accommodation block is forecast to complete 10-Feb-21. Brexit/ Port closure resulting in a delivery delay
Sewer Diversion Enabling works - Galldris Remove Hoarding form works area for MH A	23-Sep-20	05-Oct-20	-2	Complete
Complete Sewer Diversion Enabling Works	25-Feb-21	06-Jan-21	8	Complete
Start Sewer Diversion Main Works on site	23-Sep-20	02-Oct-20	-1	Complete
Start Eco Park South Works on site (with some restrictions)	26-Jan-21	26-Jan-21	0	Complete
Complete Sewer Diversion work	27-Sep-21	18-Oct-21	-3	Sewer Diversion MHA works efficiencies (1w)
Operational Commencement of RRF	26-Oct-22	28-Oct-22	0	SDMW MHB interface/ sequencing mitigated to improve forecast (8w)Resolution of LVHN interface in the Southern Road pending resolution (+8w)
NAC - Northern Area Eastern Section is cleared and available to the ERF Contractor (IF E7-5)	30-Sep-22	30-Sep-22	0	
NAC - Northern Area Western Section is cleared and available to the ERF Contractor (IF E7-6)	15-May-20	15-May-20	0	This is a consequential improvement
ERF - First Fire on Waste	19-Dec-25	23-Dec-25	0	This is a consequential improvement noting P6 deviation is working days which equates to zero weeks over Christmas period
ERF - Commissioning - Take Over (O&M engaged in operations)	31-Mar-26	02-Apr-26	0	This is a consequential improvement noting P6 deviation is working days which equates to zero weeks over Christmas period
EfW - Laydown Area Re-Instatement	10-Jul-30	12-Jul-30	0	This is a consequential improvement noting P6 deviation is working days which equates to zero weeks over Christmas period
Southern Access Road - Works Complete	15-May-31	19-May-31	0	This is a consequential improvement noting P6 deviation is working days which equates to zero weeks over Christmas period

Health, Safety & Wellbeing (HSW) Dashboard

(Explanation of Terminology)

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.

AFR considerations

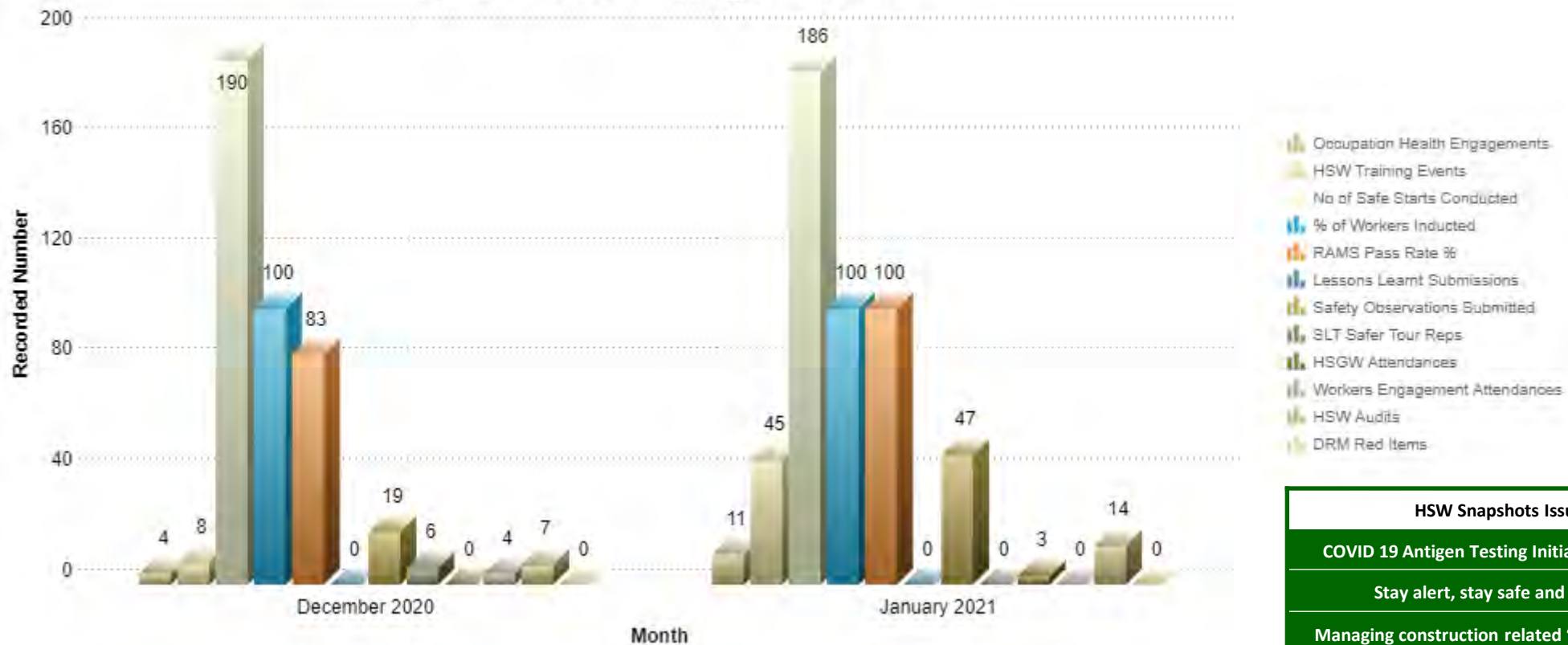
Lagging Metrics
(Accidents, injuries and incidents)

Death; Major injury (RIDDOR); Fire; Significant (EA reportable) release to environment	Serious Incidents (SI)
IP is removed from site for treatment or recovery	Lost Time Injury (LTI)
Minor injury treated on the site with basic first aid	First Aid Injury (FA)

Health, Safety & Wellbeing (HSW) Dashboard

(Summary of Leading Performance Metrics)

NLHPP HSW Leading KPI Trend

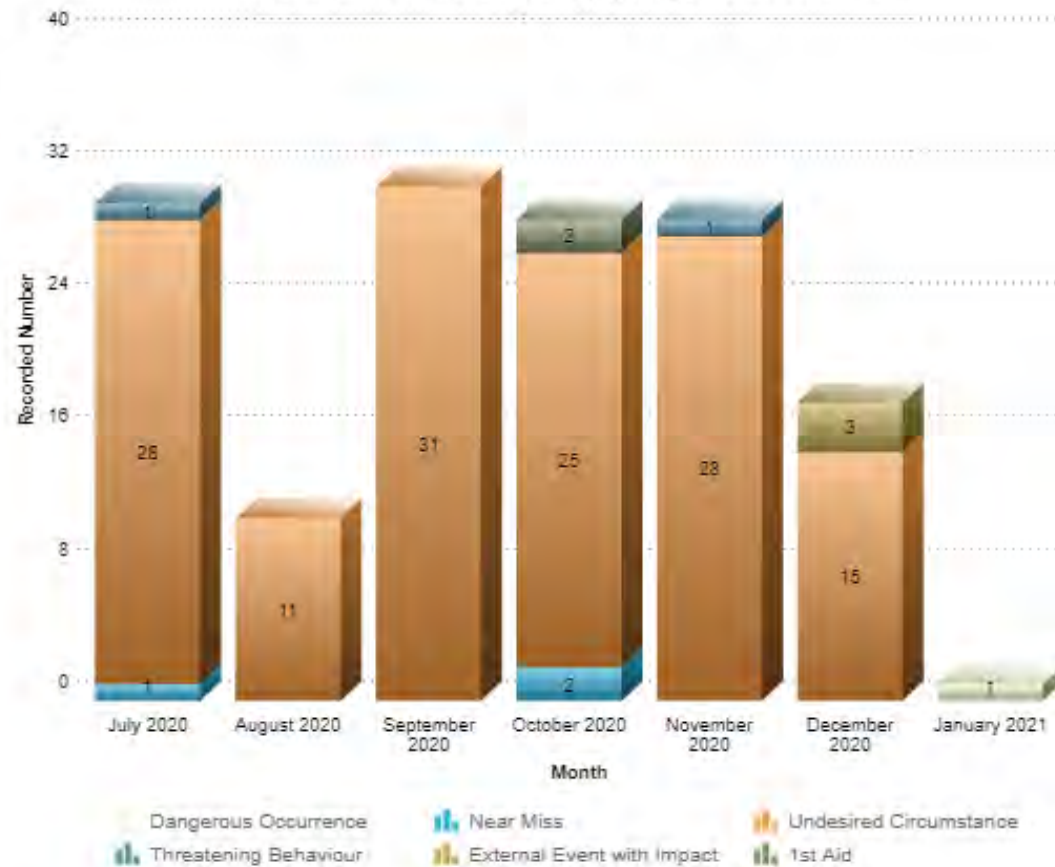


HSW Snapshots Issued	Date Issued
COVID 19 Antigen Testing Initiative on NLHPP	8th January 2021
Stay alert, stay safe and healthy.	15th January 2021
Managing construction related "Leptospirosis".	22nd January 2021
Time to Talk Day.	29th January 2021

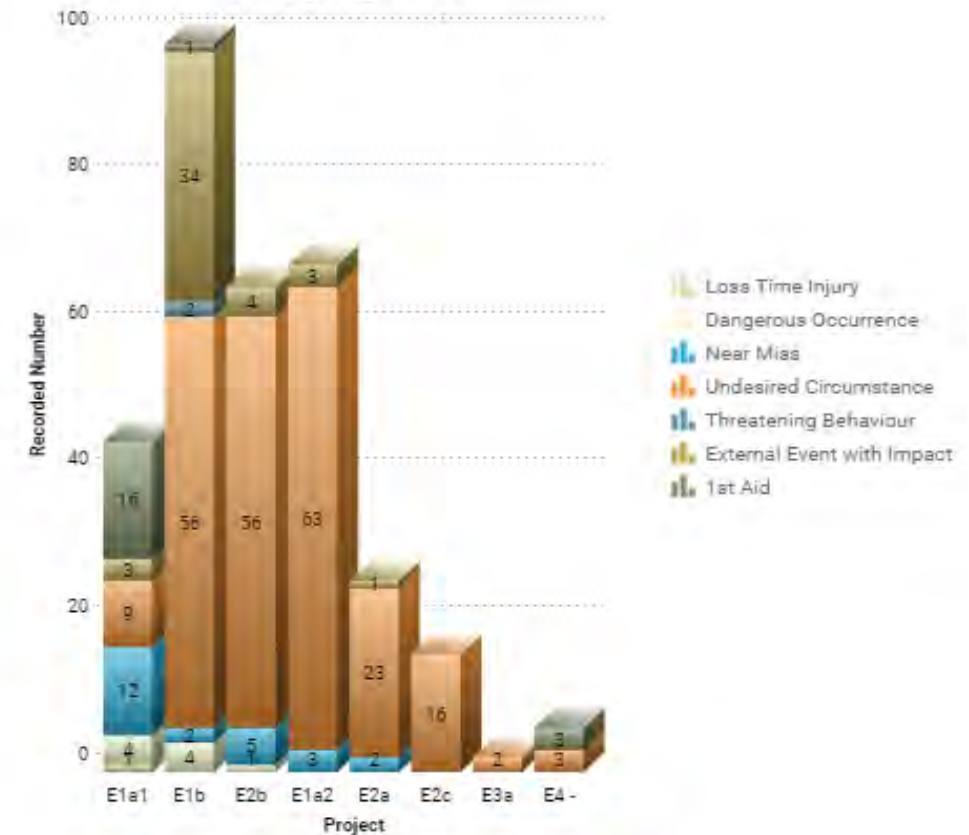
Health, Safety & Wellbeing (HSW) Dashboard

(Summary of Lagging Performance Metrics)

NLHPP HSW Lagging KPI Trend



NLHPP Cumulative Lagging KPIs





Health, Safety & Wellbeing (HSW) Dashboard

(Accident Frequency Rate, Observation Trend & COVID-19 Safety Performance)



Accident Frequency Rate (AFR^{***})

NLHPP

Construction Industry

AFR for Reporting Period

0.00

1.33

*** The Accident Frequency rate enables comparison of accident rates against hours worked rather than the number of accidents. The calculation is $(\text{number of accidents}) / (\text{number of hours worked on site}) \times 100\,000$. 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.

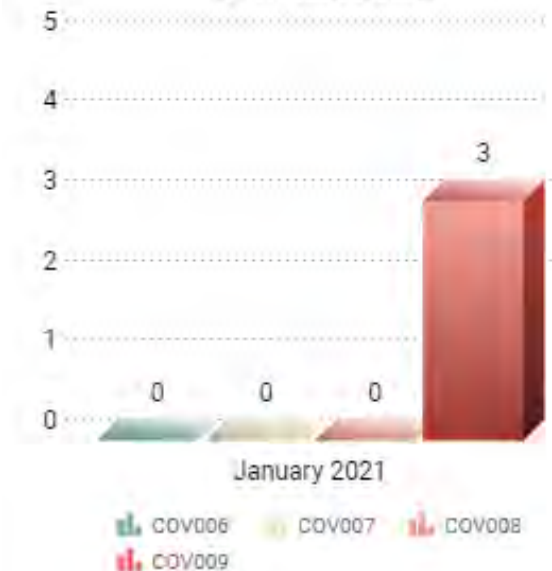
NLHPP HSW Observation Trend



No of Positive / Suspect COVID-19 Cases



Number of Persons Self-Isolated





Health, Safety & Wellbeing (HSW) Dashboard

(Project Compliance Audit Results)



Site Inspection Summary		
Site	Summary Report	Inspection Compliance Scores
E1A2 - Laydown West	Site compliance score 94.1%. Site activities comprise groundworks, road surfacing, portacabin fit out. Site is operating safely. Site Supervisor demonstrates good approach to health and safety. Plant and pedestrians segregated. Good site access. Good welfare arrangements in place. COVID-19 arrangements working well and include full-time cleaner and dedicated marshal. Operatives following RAMS and wearing correct PPE.	07th January —94.75% 14th January —95.10% 21st January —93.38% 28th January—94.00%
E3A—Eco-Park South	Site compliance score 94.2%. Site activities include site set up and utility trial pits. Site is operating safely. Site Management demonstrates good approach to health and safety. Site segregated from LEL operations. Good practice/initiatives implemented. Adequate welfare arrangements in place. COVID-19 arrangements working well. Operatives following RAMS and wearing correct PPE	14th January —94.07% 29th January —94.54%
E2B - Sewer Diversion Enabling works	Site compliance score 94.6%. Site activities comprise groundworks for new weighbridge. Site is operating safely. Site Management demonstrates good approach to health and safety. Site segregated from LEL operations. Good dust suppression on site. Good practice/initiatives implemented. Adequate welfare arrangements in place. COVID-19 arrangements working well. Operatives following RAMS and wearing correct PPE.	08th January —95.12% 14th January —94.40% 21st January —95.12% 28th January—94.36%
E2C—Sewer Diversion Main Works	Site compliance score 95.1%. Site activities include construction of manhole shafts A to C. All sites are operating safely. Site Management demonstrates good approach to health and safety. Site segregated from LEL operations. Good traffic management procedures implemented. Good practice/initiatives implemented. Adequate welfare arrangements in place. COVID-19 arrangements working well. Operatives following RAMS and wearing correct PPE.	08th January —96.51% 14th January —96.51% 21st January —93.34% 29th January—94.12%

APPENDIX B NLHPP COMMUNITY NEWSLETTER – FEBRUARY 2021

February 2021

Welcome to the NLHPP Community NEWSLETTER



Indicative image of the public Reuse and Recycling Centre

Welcome to the February 2021 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 is a new sustainable waste hub in Edmonton. We are building brand new recycling facilities for local residents and an **Energy Recovery Facility** (ERF) to generate heat and electricity from non-recyclable waste. The Project is creating

jobs, apprenticeships and training opportunities for local people.

2021 is a landmark year on the NLHPP. We've started building flagship modern recycling facilities and waste infrastructure to help boost north London's recycling rates.

This includes a **Resource Recovery Facility** (RRF) which will be one of the largest publicly owned facilities of its kind in London with capacity to manage up to 135,000 tonnes of recyclable material every year. We're also building the first ever public **Reuse and Recycling Centre** at the site, as well as **EcoPark House**, a visitor and education centre where the local community can learn more about waste management and recycling.

Community engagement

We are committed to engaging with the local community. This month, we met with our Community Liaison Group (CLG), in December 2020 we produced a construction update video showing the latest progress on-site and in November 2020 we distributed a construction newsletter. Both the construction update video and construction newsletter can be viewed on our website – www.northlondonheatandpower.london

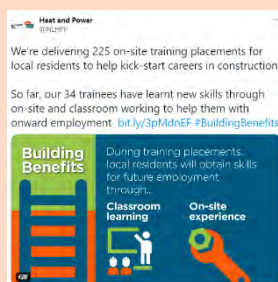
We intend to start our community roadshows again as soon as it is safe to do so. In the meantime, we continue to

keep our communities updated via our social media, email and website updates, newsletters and CLG presentations which can be viewed on our website.

We regularly post updates on **Twitter**

(@NLHPP)

and **Facebook** (North London Heat and Power Project). We also provide useful links to recycling and waste prevention activities run by the NLWA.



Project update



EcoPark South and Sewer Diversion construction sites

In January, major construction started to build brand new recycling facilities. Our contractor Taylor Woodrow will construct the RRF, Reuse and Recycling Centre and EcoPark House. So far, demolition and groundworks are underway, ahead of piling works starting in March. An innovative piling technique is being used to build the foundations of the future recycling facilities. Through using this technique, it significantly contributes towards reducing the embodied carbon on the original scheme by between 10-16%.

Works to divert two Thames Water sewers are moving at pace and will allow for the new recycling facilities to be built at

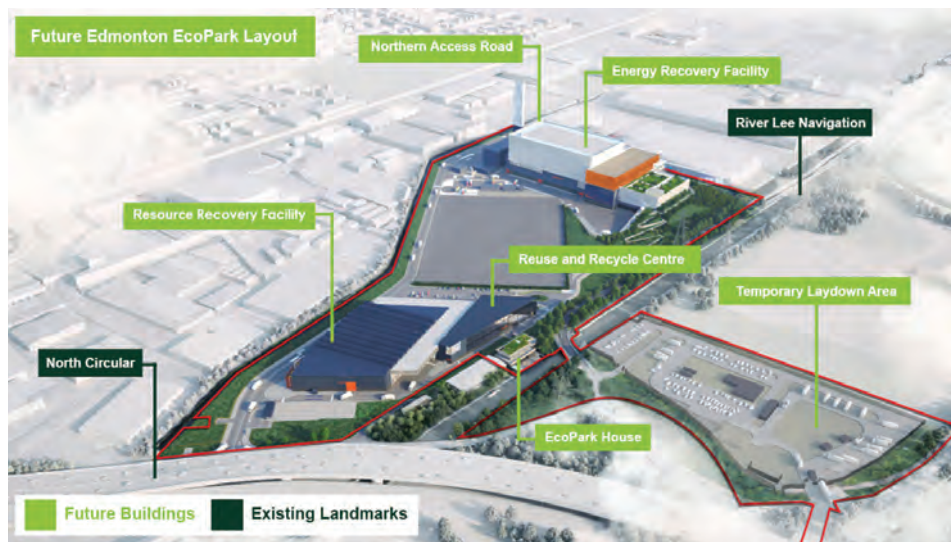
the EcoPark.

The new Laydown Area is almost complete, providing office and welfare facilities for our key contractors.

Procurement to find the ERF contractor is progressing well. Following a shortlisting

process in autumn 2020, potential contractors will submit their detailed proposals this spring, ahead of dialogue during summer, and a contract award expected by the end of 2021.

In January, we announced a major new agreement with Energetik, Enfield's local heat supply company and LondonEnergy, the EcoPark operating company to help reduce carbon emissions and provide benefits to local residents. A long-term heat supply via district heating was finalised, guaranteeing low-carbon heating and hot water to be generated by the ERF for Enfield homes.



Indicative map of the NLHPP showing sewer diversion site and EcoPark South



Safety First

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.

In response to COVID-19, we have introduced a number of measures to keep our workforce safe. Since March last year our COVID-19 taskforce has been meeting weekly, we have introduced rapid antigen testing and a track and trace system to help minimise the risk of the virus spreading. Since last year we've also introduced temperature checks, additional hand sanitising stations and one-way systems.

Building Benefits



Building Benefits is our campaign to raise awareness about the life changing opportunities being created for north London residents. We've already appointed 13 apprentices and 34 on-site trainees from the local area. Future apprenticeship opportunities will be advertised on our website here: www.northlondonheatandpower.london/buildyourfuture or you can register your interest for on-site training placements by emailing: info@northlondonheatandpower.london



APPENDIX C NLWA CONNECT – FEBRUARY 2021

February 2021



Indicative image of the new
flagship recycling facilities as part of the NLHPP

Welcome

Welcome to the second issue of **Connect NLWA** – a newsletter for north London Members of Parliament.

Connect NLWA will provide you with the latest recycling and waste prevention activity happening in your constituency, as well as updates about the North London Waste Authority's (NLWA) new sustainable waste hub at Edmonton EcoPark – the North London Heat and Power Project (NLHPP).

Managing waste for two million north London residents

- NLWA is the **second largest waste authority in the UK** and responsible for the transportation and disposal of waste on behalf of seven north London boroughs, serving two million people.
- We aim to preserve resources and protect the environment today and for future generations. We do this through our **award-winning programme of waste prevention and recycling activities** including pioneering initiatives like Low Plastic Zones, the London Upcycling Show and our Waste Prevention Community Fund.
- The NLHPP is part of this strategy. It is our plan for a **sustainable waste hub at Edmonton EcoPark**. We are investing £1.2bn in a world-class, nationally significant infrastructure project that will provide sustainable, long-term waste management and recycling facilities for another generation of north Londoners.
- Construction has now started on **state-of-the-art recycling facilities**, including a **Resource Recovery Facility (RRF)** which will be one of the largest publicly owned facilities of its kind in London, with capacity to manage **135,000 tonnes** of recyclable material every year. A **Public Reuse and Recycling Centre** is being built to allow residents to bring their recycling direct to the EcoPark for the first time ever. This is part of NLWA's commitment to help drive up north London's household recycling rates to 50%.
- We are building a new **Energy Recovery Facility (ERF)**, which is vital for **tackling the Climate Emergency**. The Committee on Climate Change (CCC) confirmed that energy from waste is the best solution for managing non-recyclable waste during the transition to a zero-carbon economy. Compared to landfill, the ERF will have the same carbon impact as taking up to 110,000 cars off the road every year. It will generate enough **low-carbon heat and power** to serve the needs of up to 127,000 homes.
- We're also investing in local communities, delivering at least **100 apprenticeships** and **225 skills-training placements** for local residents. The NLHPP will generate long-term jobs, and equip local young people with life-changing skills and training at time when they are most needed.

How can MPs help us to deliver the best services for the environment?

NLWA serves one in every 33 residents in the UK. In 2019-20 we handled over 115,000 tonnes of mixed dry recycling (MDR), which was sorted for processing back into valuable recycled materials. Whilst we are doing our utmost to encourage residents to increase their recycling and to extract all we can from the material that comes to us, it is also necessary for Government to take more action. We have welcomed the ban on some single-use plastics, but we have also called for the Government to go

further and ban a wider range of single-use, difficult to recycle, items.

NLWA delivers an extensive programme of activity designed to support residents to waste less and recycle more. But without the introduction of initiatives such as compulsory recycling, deposit return schemes and extended producer responsibility, accompanied by real powers for local authorities, we won't see the progress on recycling rates that residents, local authorities, and

the environment, so desperately need. **The Government has announced the Environment Bill is being delayed into the next Parliamentary Session. This delays long-promised initiatives such as a Deposit Return Scheme and increasing producers' responsibility for disposing of packing they create. You can help by urging the Government to push forward with these proposals which command widespread support – to reduce waste and boost recycling.**

NLWA updates

Waste Prevention Exchange

Thursday 4 March will see NLWA deliver its **seventh annual industry conference on best practice in waste prevention**. This year's flagship event will be held online, featuring a range of international speakers delivering industry perspectives on **Extended Producer Responsibility**. Speakers confirmed so far include Councillor Clyde Loakes, who will Chair the event, Phil Conran OBE from 360 Environment, Nia Bell from Oakdene Hollins and Margaret Bates from OPRL. If you would like to join this year's event, please register [here](#).



NLWA Waste Prevention Exchange 2020



New Boost for Recycling Efforts

NLWA has recently signed a lease to operate a **new waste transfer station** at Wembley, giving the Authority significant new operational flexibility to help to future-proof waste disposal services.

NLWA's main waste contractor, LondonEnergy Ltd, will operate the facility. It will include a new materials recycling "picking line". In a further boost to north London's efforts to drive up recycling rates, the new picking line will allow additional recyclable material to be extracted from the waste stream.

Focus on contamination

Tackling **recycling contamination remains a top priority for NLWA**. High levels of non-recyclable items in recycling bins means that good quality recyclable material ends up being disposed of as waste. NLWA is working in partnership with Keep Britain Tidy on a spring **campaign to address contamination caused by nappies placed in recycling bins**. This campaign will be delivered alongside NLWA's ongoing work on nappy contamination. Next month will also see NLWA launch a new campaign to further highlight the overall impact of contamination on recycling rates.

Food Waste Action Week 2021

This March (1-7), NLWA will take part in the Waste and Resources Action Programme's (WRAP's) inaugural UK-wide Food Waste Action Week. The campaign message – **Wasting Food Feeds Climate Change** – reflects the crucial role waste prevention plays in tackling the Climate Emergency. NLWA will deliver a digital campaign across north London to reinforce our existing work which supports north Londoners to make small but significant changes on food management – including portion sizes, recipes and storage.

Progress update on the NLHPP



Indicative image of the new Public Reuse and Recycling Centre, being built in 2021

Construction begins on flagship recycling facilities for north London

- 2021 is a landmark year for the NLHPP as the first phase of **major construction commences** at EcoPark South on **£100m flagship recycling facilities**. At the start of 2021, NLWA's contractor Taylor Woodrow began major construction works at EcoPark South. This comes as we celebrated the two-year anniversary since construction first began on the NLHPP.
- Over the next two years Taylor Woodrow will construct the **RRF, Public Reuse and Recycling Centre** and **EcoPark House**. So far, site demolition and groundworks are underway, ahead of piling works starting in March.
- Taylor Woodrow will be using an innovative piling technique to construct the foundations of the future recycling facility buildings. Through using this technique, it significantly contributes towards **reducing the embodied carbon from the original scheme by between 10-16%**.
- Procurement activities to find the ERF contractor are moving at pace. Following a shortlisting process in autumn 2020, contractors will submit their detailed proposals this spring, ahead of dialogue during summer, and a **contract award expected by the end of 2021**.

New alliance to tackle the Climate Emergency with low carbon heating and hot water for local homes

- In January, NLWA announced a **major new agreement** with Energetik, Enfield's local heat supplier, and LondonEnergy Ltd, the EcoPark operators to help reduce carbon emissions and provide benefits to local residents.
- A long-term heat supply via district heating was finalised, guaranteeing a **low-carbon heating and hot water supply for Enfield**.
- The agreement will provide a sustainable solution for the heating and hot water needs of more than **10,000 homes and businesses across the Meridian Water development**, with the capacity to supply up to 30,000 more homes across the borough and beyond.
- With the increased efficiency of a new, modern ERF, **enough power can be generated for up to 127,000 homes** through the national grid. This agreement will further increase the ERF's energy efficiency by harnessing heat energy which will be used locally.



Building Benefits for the local community

- **#BuildingBenefits** is our campaign to raise awareness about the life changing opportunities being created for residents in your constituency.
- We've already appointed **13 apprentices** who are working in highly skilled roles across **civil engineering, quantity surveying and business administration**. Five of our apprentices began their on-site working with Taylor Woodrow in January.
- This summer we'll be advertising **more opportunities for north London residents**. Your constituents can apply to be part of this exciting national infrastructure project by visiting our website for updates: www.northlondonheatandpower.london/buildyourfuture
- We've welcomed **34 trainees** so far, supporting local residents to obtain new skills during short-term on-site placements. Over the next year we'll be appointing more trainees who will work towards obtaining a **Construction Skills Certification Scheme (CSCS)** card - a vital steppingstone to starting a career in construction. Your constituents can register their interest for training opportunities by emailing: info@northlondonheatandpower.london
- Later this year we hope to roll out our **Schools Outreach Programme** where we'll be working with KS3 students to stimulate interest in STEM subjects and educate young people about the process of waste management and recycling in their local area.



NLHPP apprentices Joe Wheeler (left) and Hamish Bellinger (right)

Engaging the community



- We continue to keep local stakeholders up to date as the Project progresses. We regularly update our [website](http://www.northlondonheatandpower.london), [@NLHPP](https://twitter.com/NLHPP), [Facebook](https://www.facebook.com/NLHPP) and [LinkedIn](https://www.linkedin.com/company/northlondonheatandpower) with the latest project news.
- This month we issued a community **newsletter** to 28,000 properties and held a virtual **Community Liaison Group meeting**, providing updates to community representatives and answering their questions about the Project.

If you or your community would like to contact us, please get in touch by emailing post@NLWA.gov.uk.



@NLHPP
@connectNLWA



@North London Heat and Power
@connectNLWA



@connectNLWA



NLWA.gov.uk



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