

**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:** 31 OCTOBER 2022

**SUMMARY OF REPORT:**

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

**RECOMMENDATIONS:**

The Authority is recommended to comment on and note the contents of the report.

**SIGNED:**



Programme Director

**DATE:** 19 October 2022

## **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, 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 supporting information in appendices.

## **2. PROGRAMME DIRECTOR'S SUMMARY**

- 2.1. This report encompasses project activities throughout August and September 2022. The programme remains on track to deliver against all its objectives, and updates on some of the key projects and workstreams are provided within this report.
- 2.2. A major milestone and highlight has been achieved with the first section of the ERF site successfully being handed over to Acciona. The project achieved this one month ahead of planned after successful completion of the demolition of existing facilities by DSM. The Enfield-based company, Galldris, as sub-contractor to Acciona, are underway with the enabling works prior to a start of the major civil construction on 3rd October. Off-site, Acciona and the project team are heavily engaged in the programme of design work and are making good progress with procurement of their subcontracts ready for construction.
- 2.3. A two-day senior management team meeting with Acciona was held in Madrid, where senior leaders again confirmed their collective commitment to project success, Acciona also proposed an exploration of plans to create opportunities and work with the local community. The visit provided an opportunity to meet Acciona's design house and visit an operational biomass facility where they have successfully worked together previously.
- 2.4. Elsewhere good progress on the construction of the RRF is being made on site by Taylor Woodrow and collaboration with LEL is progressing with the start of user acceptance testing. As a result, the project is on track to receive first waste on the 10th of March 2023 and will be in full operations by the end of April 2023 . The cladding to the southern and western building elevations has been completed, revealing the future look of the building. The distinctive odour control stacks of the

RRF have been installed and the canopy between the RRF and RRC is well progressed.

- 2.5. There are several critical interfaces between the RRF completion, LEL waste operations and providing Acciona with full site access as planned in summer 2023. The project team is working closely with all contractors and LEL to ensure interfaces are managed effectively with no delays.
- 2.6. Recruitment of apprenticeships and other job vacancies remained a focus through September with two apprentices starting in September and three more due in October.
- 2.7. Performance of health, safety, and wellbeing remains positive this period, with key metrics, such as lost time injuries, staying at zero.
- 2.8. As part of the project's commitments to wellbeing of the workforce, as well as physical health and safety, on Friday 9th September the project raised awareness of World Suicide Prevention Day. Suicide in the construction industry is at three times the average for men in the UK. Dr Nicola Funnel, a Consultant Psychiatrist and Clinical Director, delivered two talks, speaking to around 200 construction and office-based staff. This was an insightful session with several resources shared for people to support suicide prevention.
- 2.9. Engagement with councillors has continued with several briefings and site tours completed and planned for coming months.
- 2.10. Finally, following a journalist visiting the EcoPark, a number of positive press stories have been published in local newspapers across north London, stories which include factual information and set out how the construction progress on the new Resource Recovery Facility will provide a vital role in maximising recycling from north London's waste.

### **3. SOCIAL VALUE**

- 3.1. The delivery of social value on the project is expected to significantly accelerate when Acciona's works on site increase. The ERF social value contract requirements mark a considerable increase in the outputs and outcomes which will be delivered in comparison with previous contracts. The team is developing robust delivery processes to realise the full potential of social value outcomes on the ERF contract as the project gathers pace. In September, Acciona held the second ERF Social Value Governance Board meeting with attendance from an NLWA Member, senior borough officers working in employment, skills and training, and a representative from the Construction Industry Training Board. The Board supports the delivery of social value requirements on the ERF contract, which include:

At least 90 new full time equivalent apprenticeships  
180 training placements  
£16.5m of supply chain spend  
418 full time equivalent employment opportunities held by local residents  
90 days of school engagement and 75 site visits  
1,221 days of volunteering and £187,500 in donations or in-kind contributions  
1,225 hours of equality, diversity and inclusion training for workers.

- 3.2. The discussion included an update on activities on the project and ways in which delivery can align with existing structures and initiatives within NLWA boroughs. Acciona has so far recruited three apprentices who are due to start in October, with interviews ongoing for four further apprenticeship roles. The meeting also included a discussion on setting up the skills delivery network for Acciona's sub-contractors in November which will connect them with local job brokerages and training providers to ensure supply chain is able to fulfil the apprenticeship and employment requirements.
- 3.3. While at present Acciona's site presence is relatively small, the workforce will start growing as works gather pace. In preparation for this, recruitment is ongoing for local job vacancies with two new jobs created on the ERF contract. The remaining vacancies on the project will be promoted at the local job fairs in Haringey on 6 October and Waltham Forest on 26 October to ensure local candidates are prioritised in recruitment.
- 3.4. Furthermore, Acciona will be launching the community projects brochure to local community organisations later in October to allow applications for volunteering time and small grants (of up to £1,000) towards local initiatives.
- 3.5. Apprenticeship recruitment has also continued on the EcoPark South contract, with two apprentices joining the project in September. This includes a new Civil Engineering apprentice with Galldris and a Plumbing and Domestic Heating technician with EJ Parkers (recruited through Evolve as a Shared Apprenticeship Scheme provider).
- 3.6. The Social Value Dashboard overleaf provides a summary of progress on apprenticeships and training placements against targets, with data up to end of August. The project aims to encourage a greater representation of women among apprentices and to support this, Women into Construction have been actively engaged in helping to recruit for the apprenticeship roles. In addition, Acciona is planning for delivery of training placements with Women into Construction which will offer training for unemployed local women across seven NLWA boroughs in early 2023.
- 3.7. Supporting routes into employment is a key priority for the project, and preparations training placements on the ERF contract are being designed with this

in mind. The NLWA and Acciona have supported Enfield Council's application to the Mayor's Construction Skills Bootcamp training programme for unemployed residents. If successful, the training programme will help to meet skills requirements for the project and provide onward employment to trainees. Furthermore, engagement with London Borough of (LB) Enfield about the Meridian Water Skills Academy continues in order to provide a training pathway for residents into work on the project.

- 3.8. There were no school events during August and September due to the schools being on their summer holiday. During this time, the project team have been planning delivery for the next academic year which included gauging interest with school contacts regarding site visits which will be offered this year. A number of schools have already expressed interest, with site visits and schools programme delivery being planned throughout the autumn. This includes a careers fairs in Waltham Forest, Enfield High Achiever's Event and two work experience weeks planned with schools in Hackney. The team is continuing to scope out expansion the schools programme to primary schools.
- 3.9. The team is continuing to scope out expansion the schools programme to primary schools. The proposal has been shared with Enfield Council for feedback and with four Enfield school teachers for their feedback to help shape the development of the programme.
- 3.10. With continued commitment to supporting a diverse workforce, the team has engaged with West Lea School in Enfield which caters for students with special educational needs. The school runs a supported internship scheme for students aged 18-25 which offer extended work placements where interns are assigned a job coach to assist both the student and the employer throughout the process. The team is looking into providing a supported internship with the ERF contractor which would commence in November.

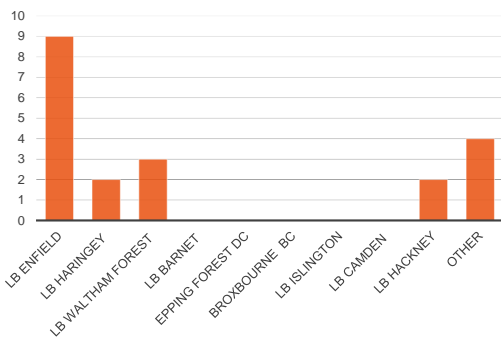
# Social Value Dashboard

Social Value Theme	Target	Progress
<b>Development Consent Order (DCO) Obligations:</b>		
<b>Apprenticeships</b>	<b>100</b>	<b>54</b> years of apprentices' employment <b>20</b> individuals
<b>On-site Skills Training Placements</b>	<b>225</b>	<b>138</b>
<b>LB Enfield targets, adopted as measure by NLHPP:</b>		
<b>Local Labour</b>	<b>25%</b>	<b>18%</b>
<b>Local Businesses</b>	<b>10%</b>	<b>18%</b>
		<b>£12.1m</b> (local spend by contractors to date)
		<b>£21.3m</b> (local spend by NLWA & contractors to date)
<b>Delivery against Industry Benchmarks:</b>		
<b>Equality, Diversity &amp; Inclusion (EDI)</b>	The project aims to promote women in on-site construction workforce	<b>3%*</b>
	The project aims to promote Black, Asian and Minority Ethnic (BAME) Groups in on-site construction workforce.	<b>16%*</b>

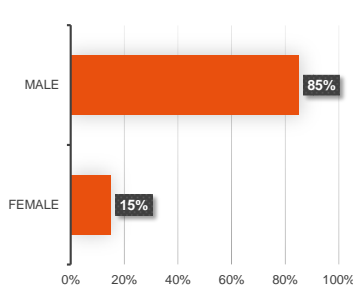
\*Not all employees have chosen to report on ethnicity and gender, and the statistics are likely an underestimate. NLHPP is working with contractors to improve data collection.

## Apprenticeships

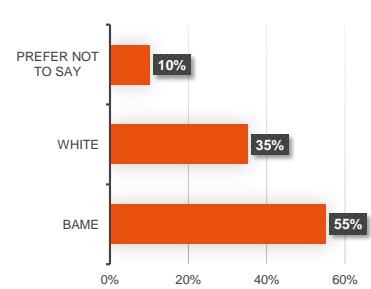
Apprentices - Home Borough



Apprentices - Gender



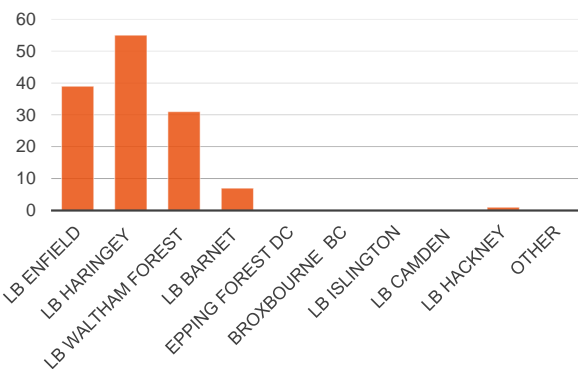
Apprentices - Ethnicity



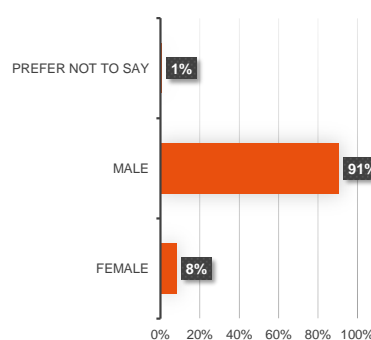
Apprentices - Home Borough	Local Wards
LB Enfield	Upper Edmonton (1); Turkey Street (1); Southbury (1); Lower Edmonton (1); Jubilee (3); Grange (1); Chase (1)
LB Haringey	Tottenham Hale (1); Seven Sisters (1)
LB Waltham Forest	Higham Hill (1); Larkwood (1); Hatch Lane (1)
LB Hackney	Haggerston (1); Woodberry Down (1)

## Training Placements

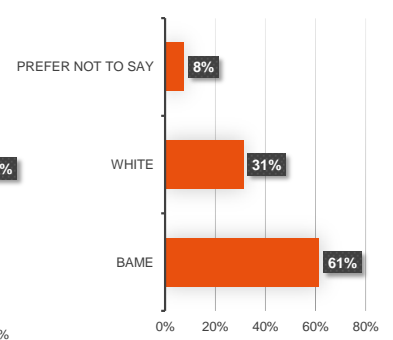
Trainees - Home Borough



Trainees - Gender



Trainees - Ethnicity



## **4. COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT**

- 4.1. The communications team have been working across the period to increase engagement with local Councillors and provide tours of the Edmonton EcoPark for key stakeholders to see the construction progress. Tours have been held across summer with 17 stakeholders visiting the site to date.
- 4.2. A briefing was held for Barnet Councillors at Hendon Town Hall on 6 September to provide key information about North London Waste Authority and the progress on the NLHPP. 13 Councillors attended the briefing. To date Waltham Forest, Barnet and Enfield have participated in briefings and further briefings are due to be provided for Hackney, Camden, Islington, and Haringey.
- 4.3. Following a journalist visiting the EcoPark, several positive press stories have been published in local newspapers across north London relating to the construction progress on the new RRF and how it will provide a vital role in maximising recycling from north London's waste. At the start of September, stories were published in 13 local and online news publications with a total combined reach of over 1.8 million people.
- 4.4. An early access to the construction site for Acciona at the start of September was announced reflecting the collaboration and early success of the ERF works by all involved. A local contractor Galldris is completing the ground clearance works and this was shared within a press announcement and updated to all major stakeholders once the period of national mourning had ended. The story is published online here:  
  
<http://northlondonheatandpower.london/news/construction-of-energy-recovery-facility-starts-in-north-london/>
- 4.5. Messages about the environmental successes on the project through construction continue to be shared across the social media platforms and information to explain how the new facility contributes to improving air quality.
- 4.6. Further updates on the project and North London Waste Authority have also been shared with new ministers recently appointed to Department for Business, Energy and Industrial Strategy and Department for Environment, Food and Rural Affairs. A copy of the letter issued is available on the scheme of publication:  
  
<https://www.nlwa.gov.uk/ourauthority/scheme-of-publications/nlwa-letter-beis-and-defra>

## **5. PROJECT DELIVERY SUMMARY**

- 5.1. This section summarises progress in delivering the new facilities that comprise the North London Heat and Power Project which are:

the Energy Recovery Facility (ERF),  
the Resource Recovery Facility (RRF) and  
EcoPark House.

The overall summary below highlighting progress on each and other supporting works is followed by a short project report on each facility.

- 5.2. The new ERF is on track and the contractor Acciona have been given their first phase of site possession one month early. This enables them to get ahead with preparations for the foundation works which reduces the schedule risk in the civil engineering works.
- 5.3. Giving Acciona further and full site access in June 2023 remains on track and is a strong focus of attention across the whole project team. This involves a number of critical initiatives, such as the relocation of LEL's Bottom Ash handling area, the relocation of LEL's weighbridges to the south of the EfW and plans for LEL managing waste off site for approximately two months between March and April whilst the RRF is completed. All these challenges have plans and resources in place to meet the access date.
- 5.4. The RRF has started its testing and commissioning phase now that most of the mechanical and electrical equipment is installed. This follows successful factory acceptance testing of equipment by manufacturers with the project team and LEL in attendance. The operator training programme has started with the Trade Effluent Plant. This has provided early learning opportunity to refine the rest of the training programme to work well for LEL.
- 5.5. LEL has successfully trialled some waste handling in the new RRF tipping hall by bringing in their loading shovel plant and loading an articulated waste transfer lorry. This is an example of how the project is benefiting from involving the operator early in the commissioning and subsequent smooth transfer of operations.
- 5.6. The construction of EcoPark House remains on plan to be completed in April 2023. The full scope of its use is being explored to determine how it can best be used to the benefit of the local community alongside its established commitment to the Sea Cadets. The building is taking shape and starting to demonstrate its attractive architectural features and canal side location.
- 5.7. The EcoPark's site wide utility services that enable the new facilities to function have completed their design along the Western Road and will be installed in 2023 following a competitive tender this year under the Minor Works Framework. This will coincide with phasing of site logistics and use of Northern and Southern entrances for waste management and construction traffic.



- 5.8. The construction Laydown Area sited adjacent to the EcoPark and its welfare and office facilities continue to be fully utilised by the project team and workforce. The facility is now being shared between Taylor Woodrow and Acciona who will take over its management in October.
- 5.9. Further details of progress of each major element of the project are provided in the following tables.

## Energy Recovery Facility (ERF)

### Summary

The ERF project remains on plan to achieved “take-over” into service in 2026.

The handover of ERF Zones 3 & 4 to Acciona has been achieved one month earlier than planned, which de-risks the start of Acciona’s construction programme. This achievement demonstrates the collaborative approach been adopted by both parties. The Acciona team, based in Madrid and at the EcoPark continue to work collaboratively with the NLHPP team to review and agree the design of the ERF and to put construction plans in place to support the start of the major civils works commencing in October. This includes test piling to validate the foundation design and site preparations.

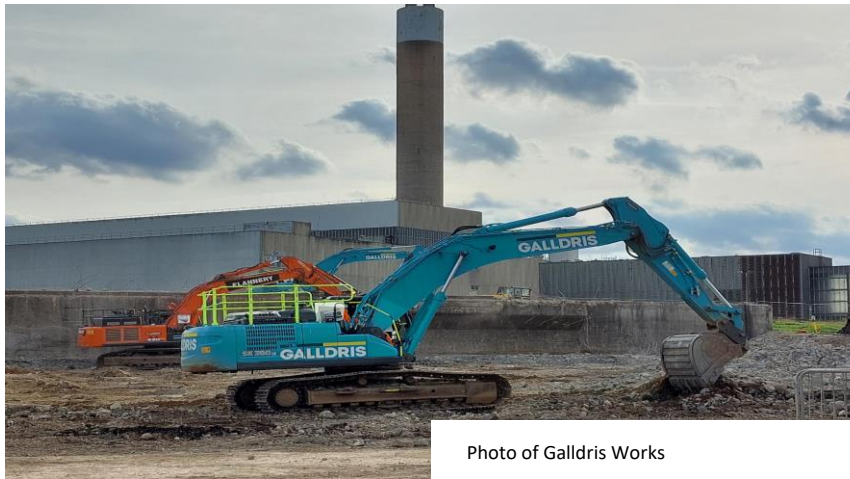


Photo of Galldris Works

### Successes and Milestones

The Enfield based company Galldris have commenced site preparation works for Acciona one month earlier than planned. The NLHPP team has approved Acciona’s main civil works contractor Van Elle Ltd ahead of the commencement of the piling works in October. The piling risk assessment has also been approved by the LBE and Environmental Agency. This approval was a key condition of the DCO and was required before the piling works could commence. These are both critical milestone, which enable the start of piling works around the ERF bunker area in October. LBE has also approved plans for a covered walkway between the Laydown Area and Acciona construction site and a new and pedestrian bridge over the River Lee Navigation. Acciona and their specialist suppliers continue to develop the design and engineering for early design packages for the process equipment and civil engineering designs. Over 1000 design related documents have been reviewed by the Authority’s technical assurance function with no major deviations from the contractual quality and performance requirements identified.

### Look Ahead

The transition of the Laydown Area from Taylor Woodrow to Acciona will take place October 3<sup>rd</sup> as planned. Piling works around the bunker will commence in October, which will see a build-up of people and the mobilisation of heavy construction equipment on site. The NLHPP Team will be closely monitoring the interface between Operational and Construction traffic using the northern entrance as levels increase to access the ERF worksite.

Acciona will place orders for the steam turbine package and air-cooled condensers during the next period. These are critical procurements within Acciona’s construction programme.

## Resource Recovery Facility (RRF)

### Summary

The RRF is estimated to receive first waste by the 10<sup>th</sup> of March 2023 and will be in full operation at the end of April 2023. Good progress has been made with the building cladding and installation of the odour control equipment inside the building.

The start of commissioning elements of the facility and training LEL's staff for its operation and maintenance started in September and will continue until it goes into service.



LEL Trialling Loading Operations on Tipping Apron



RRF showing the odour control stacks

### Successes and Milestones

The cladding to the southern and western building elevations has been completed, revealing the future look of the building. The distinctive odour control stacks of the RRF have been installed and the canopy between the RRF & RRC is well progressed. The Trade Effluent Waste treatment plant and the Odour management system have been installed and are being readied ready for commissioning.

The facility will be energised from the current Energy from Waste (EfW) facility which will enable its mechanical and electrical systems to be tested, commissioned, and operated.

The commissioning plan has been developed in conjunction with LEL to include the needs of their role as the future operator and maintainer. This is an important step towards the hand over to LEL to prepare for operation by the end of April 2023.

Using the Building Research Establishment Environmental Assessment Method (BREEAM) the RRF has attained a rating of Very Good as planned.

### Look Ahead

The recent progress with the completion of the building exterior and mechanical and electrical systems means that there is confidence in starting the commissioning processes in October.

Over 3000 documents will be received over the next 6 months during commissioning and training to support LEL's development of its operation and maintenance procedures.

The external faces of the building have been completed over the summer to create a new landmark in the area.

## EcoPark House

### Summary

The construction of EcoPark House remains on plan to be completed in April 2023. Good progress has been made with the internal fit out of the building and the outside is taking shape.

The building will be independently powered “off-grid” and the equipment to enable this innovative solution has now been ordered.



Glazing install on the EcoPark House



### Successes and Milestones

The building's aesthetic appearance is now being revealed by the completion of the precast concrete exterior cladding and the glass roof to the parapet on the western side facing into the EcoPark. Internally the lift has been installed and has been tested ready for when the whole building is commissioned.

Ground source heat pumps and the tesla batteries for the “off-grid” power supply have been placed on order and installation of the 150m depth boreholes for the heat pumps have commenced.

Using the Building Research Establishment Environmental Assessment Method (BREEAM) EcoPark House has so far attained a rating of Very Good as planned.

### Look Ahead

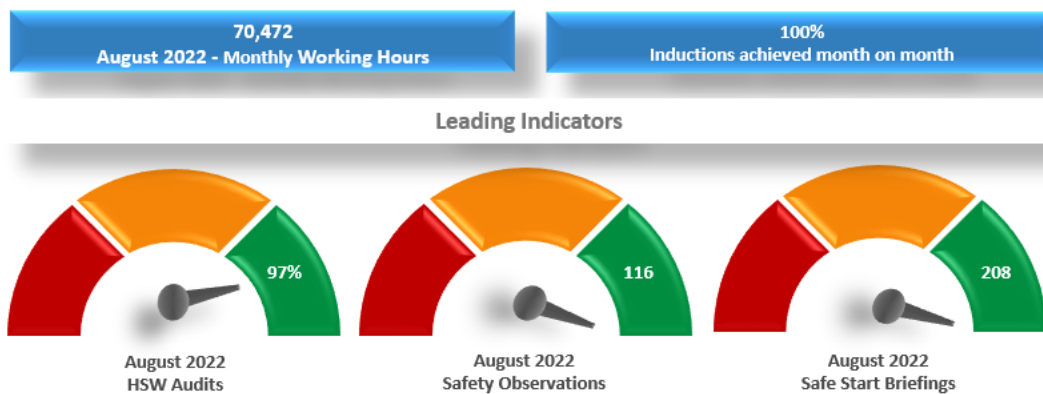
The building construction internally and externally will be completed by early autumn, followed by testing of all mechanical and electrical systems.

The “off-grid” power supply is expected to be switched on in January 2023 and used to complete the commissioning process.

## 6. HEALTH, SAFETY AND WELLBEING

- 6.1. The proactive measures and good practices in place across the NLHPP programme continue to support the good standards of Health, Safety and Wellbeing (HSW) performance across the NLHPP programme managed, coordinated, and controlled.
- 6.2. Both key performance indicators; The Accident Frequency Rate (AFR) for reportable injuries in accordance with Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013 and The Lost Time Injury (LTI) Accident Frequency Rate, remain at 0.00 for the Energy Recovery Facility and EcoPark House Projects.

### EcoPark South - HSW Performance Indicators



- 6.3. **Safety Observations:** All safety observations, including those highlighting positive behaviours are encouraged to maintain the high standards of Health and Safety on the project. The number of observations were slightly lower in September, therefore recent campaigns and events have focused on encouraging increased reporting.
- 6.4. **Achievements and Initiatives:** Saturday 10th September was World Suicide Prevention Day. To raise awareness On Friday 9th September Dr Nicola Funnel, a Consultant Psychiatrist and Clinical Director, delivered two talks, speaking to around 200 construction and office-based staff. The following week was also used to share reminders and resources for people to support suicide prevention.
- 6.5. The HSW Forum continues to meet monthly to discuss performance and initiatives that support continual improvement of HSW at NLHPP. The Working Groups continue to make good progress with development of initiatives for Behavioural Based Safety, Mental Health & Wellbeing and Communications

## 7. ENVIRONMENT AND SUSTAINABILITY

- 7.1. The project continues to focus on environmental and sustainability considerations, working to successfully manage environmental risks and identify opportunities for enhancing sustainability performance.
- 7.2. There has been continued good performance against Environment and Sustainability (E&S) Key Performance Indicators (KPIs) with minimum targets either met or exceeded, as shown below.



- 7.3. **Environmental Observations:** Our contractors continue to champion environmental and sustainability issues on site, through raising environmental observations and exceeding their monthly minimum target of two observations per contractor. Overall 24 environmental observations were raised across the project (12 positive and 12 negative). The high number of observations raised is consistent with previous months.
- 7.4. **Sustainable Materials:** Across the project 100% of timber delivered to site has been from recycled or sustainable sources as defined by Forestry Stewardship Council (FSC) standards. The target for this KPI is 100% of timber procured is from recycled or sustainable sources.
- 7.5. **Environmental Site Inspections:** Surveillance visits have identified that in general, environmental items were being well managed in line with good practice however there were some areas for improvement in relation to ensuring plant machinery is compliant air quality requirements, and correct use skip use for concrete wash out. A positive observation was raised recognising good practice signage for spill kits.
- 7.6. **BREEAM:** In line with our sustainability commitments, the project is required to achieve 'Very Good' (55%) rating in the Building Research Establishment's (BRE) Environmental Assessment Methodology (BREEAM) rating system, which provides a sustainability framework to deliver high sustainability performance across buildings whilst also creating positive environmental and social impact. Both EcoPark House and the RRF have currently achieved this rating and are targeting Excellent. The ERF is working towards this commitment.

- 7.7. **Sustainability Innovations, Opportunities and Best Practices:** Taylor Woodrow have implemented an opportunity to divert used sheet piles from waste. This has reduced scrap metal generation on site, conserved the use of natural resources and saved associated carbon emissions.
- 7.8. **Environment and Sustainability (E&S) Working Group:** The project E&S Working Group holds a quarterly forum to engage with contractors, to identify environment and sustainability improvements throughout construction delivery and provide a platform for communication. On 20th September we held a workshop to share knowledge, lessons learned and best practice across the project, particularly in preparation for Acciona mobilisation on site in the Autumn. The workshop was well attended from representatives and contractors across the project, with high levels of engagement and a good range of information shared.
- 7.9. **Electric Tower Crane:** An electric Spierings tower crane, SK1265-AT6 eLift was used for lifting roofing panels onto the RRF. The zero emission eLift system has two operating modes: electrical mode and hybrid mode. Both modes have an efficient first line energy source and allow the operator to choose between operating on grid or diesel power. The PowerPack battery technology absorbs peaks in energy usage and will be charged when energy requirement for the crane is low. By using the electric mode, the crane is operated 100% emission free on a low sound level without any limitations in usage and capacity. The project operated the crane on electric mode throughout its duration on site.



Electric tower crane at the RRF

**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.

**Contact officer:**

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