

**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:** 11 NOVEMBER 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:** 01 November 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 27 August 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**

- 2.1. The programme remains on track to deliver against its key objectives, with strong progress being made on site.
- 2.2. Within the EcoPark, the very visible steel structure of the future recycling and fuel-preparation element of the RRF is increasing every day, with multiple ground and concrete works also underway around the structure. In the north, the concrete base of the Temporary Bulky Waste Recycling Facility (TBWRF) is being constructed and the building's walls have started to be erected. Overall, the programme continues to forecast a five-week delay to completion of the EcoPark South works. This reflects the combination of material delays that were previously highlighted but now have confirmed delivery dates. In addition, there were some delays on early ground works activities that have been rectified, and construction progress is now running efficiently in line with the schedule.
- 2.3. The ERF procurement process is nearing its conclusion, with dialogue complete and the Invitation to Submit Final Tenders (ISFT) issued. The evaluation will be completed during October and November, with the final recommendation being prepared for December.

- 2.4. The Health, Safety and Wellbeing (HSW) performance remains positive with key measures of accident frequency better than comparable industry standards. The growing scale and range of activities on site has led to a trend of increasing numbers of safety observations, both positive and negative being identified. This is a positive measure of safety awareness amongst the workforce and is allowing the team to undertake preventative action.
- 2.5. A management safety visit by the project leadership took place in mid-October. The conclusion was that whilst the site was very busy, the multiple work faces were very well segregated, vehicle movements were tightly controlled, and the workforce were well supervised.
- 2.6. The environmental controls during construction continue to be very effective and good practices are being delivered throughout the site. The inspection visits identified three “near misses” this period, for which response actions have been taken on board by the contractor.
- 2.7. The social value team are increasingly focusing on the schools outreach programme with COVID-19 restrictions reducing. The programme details are being shared widely to schools by boroughs, and sessions are being booked over the coming months.
- 2.8. A very successful three-week on-site skills training course was completed in the month for 16 candidates. This follows improvement of the recruitment and selection process to address the challenge of levels of attrition before and during the training.
- 2.9. Communications activities have increased opportunities for public engagement. Several roadshows have taken place in the last period, and a further programme of events is being developed to encompass all parts of north London.

### **3. PROJECT DELIVERY SUMMARY**

- 3.1. This section summarises the status of the delivery of the project elements that comprise the delivery of the North London Heat and Power Project.
- 3.2. The project is carrying out construction on a large scale in the EcoPark across a broad front. With a major proportion of the RRF’s steel structure in place, the impressive scale of the building is becoming visible at the southern end of the EcoPark. As well as major steel erection taking place, construction is progressing extensively including drainage and reinforced concrete structures in the south and north of the site.
- 3.3. The focus of construction on-site continues to be the erection of the buildings for the RRF in the south and the temporary bulky waste recycling facility (TBWRF) in the north. Further details of the current construction activities and their progress is

given later in this section. Construction of the RRF is progressing to plan however the late start of steelwork erection continues to place a degree of pressure on the completion date.

- 3.4. Initially the TBWRF is required to relocate the current bulky waste recycling facility so it can be cleared whilst the RRF is constructed. Once the RRF is complete it will take over from the TBWRF so that it can make way for the ERF construction.
- 3.5. A current “Health Check” summary of project performance is included at Appendix A. The following paragraphs provide a project-by-project summary of progress on site.
- 3.6. The aerial view of the EcoPark shown below has been marked up with features referenced in this section.



Figure 1 EcoPark aerial view

### Construction Logistics

- 3.7. The critical flow of construction and waste management traffic through the EcoPark southern entrance continues to operate as it has done over the last few months with no changes in the routing. Plant, equipment, and materials needed for construction are accessing and egressing the construction areas through the EcoPark southern and northern entrances. This has included the movement of some large mobile cranes used in the building of the RRF.

### **Laydown Area and Eastern Access (Project E2A)**

- 3.8. Final checks and acceptance of additional road safety works by the Authority and LEL are on-going to enable the reopening of Lee Park Way to pedestrians and cyclists.

### **EcoPark South (Project E3a)**

- 3.9. On-site construction has progressed well in the last month with no safety incidents. The steel frame structures are continuing to be built for both the RRF and EcoPark House structures, and the first-floor structure is in the process of being installed. In respect of the public amenity area, earthworks and piled foundations have continued in the last month and the basement water tank is nearing completion to enable the start of the steel structure.
- 3.10. The photograph in figure 2 below shows progress of the RRF steelwork on site.



Figure 2 RRF Steelwork being erected

- 3.11. As noted previously the construction programme outlook is being impacted by availability of construction materials, particularly steel and roof cladding. This is attributable to world-wide disruption to supply chains during the COVID-19 pandemic and the subsequent boom in construction works. Resequencing of activities and additional resource mobilisation has been undertaken to mitigate the impact of this delay as far as practical. Progress on site to date is about 5 weeks behind schedule in critical areas, which is increasing. Although productivity in the

last month has improved, there is a significant likelihood of completion taking place later than planned completion by five weeks.

- 3.12. EcoPark House construction on site has continued as planned. The primary structural steelwork has been erected, as can be seen in the photograph in figure 3 below. The design of the building's mechanical and electrical services has been developed to enable it to function with power supplied by the solar panels on the RRF and ground source heat pumps, rather than drawing power off the grid. This solution brings whole life cost benefits and improves its operational carbon footprint.



Figure 3 EcoPark House under construction

### **Northern Area Clearance (Project E3b)**

- 3.13. Construction of the temporary bulky waste recycling facility (TBWRF) is now beginning to take shape on site. Most of the civil groundworks to level the site are complete and activities to construct the floor slab have commenced, see figure 4 below.



Figure 4 Construction of floor slab and walls

- 3.14. Items of materials and plant for the TBWRF that have long lead times are either in manufacturing or have been delivered to site. Such items include the odour management and fire management systems as well as the steel truss frame, the last of which has been delivered to site, see figure 5 below.



Figure 5 Steel truss frames stored on site

- 3.15. Procurement of the demolition and clearance of the existing bulky waste facility and the TBWRF is being sourced through the Crown Commercial Services framework of contractors. This is the same process successfully used for clearance of the western section of the northern area, which is now the site of the TBWRF. Tenderer submissions were received at the end of October 2021.

#### **Site Utility and DNO Works (Project E4)**

- 3.16. Cadent have completed the ground radar and trial trench surveys for their pipeline design. Following Member's delegation of authority to the Programme Director to procure and manage the construction of a new gas supply pipeline at the October

meeting, the commercial arrangements for the construction phase are now being agreed with Cadent.

#### **Energy Recovery Facility (ERF) (Project E7)**

- 3.17. The invitation to submit a final tender has been issued with a return deadline in October 2021.
- 3.18. The Authority has confidence that it will receive a tender that meets its needs. A recommendation will be given to Members for a decision in December 2021 in line with the timeframe that was previously reported.

#### **4. HEALTH, SAFETY & WELLBEING**

- 4.1. This summary considers an overview of the Health, Safety and Wellbeing (HSW) outcomes for the August 2021 period, with updates included to the end of September 2021.

##### **Health, Safety & Wellbeing Performance**

- 4.2. Health, Safety and Wellbeing (HSW) continues to perform very well across the programme. Significant ongoing site activities continue to be well managed and controlled.
- 4.3. The growing site activity with parallel works has led to an increased number of contractors, with a total of 197 workers present. Maintaining safe working distances between different construction operations has been given attention as a result. Daily coordination meetings provide a means of front-end planning against potential hazards and risks allowing necessary mitigation strategies to be put in place.
- 4.4. Traffic management and pedestrian segregation has also been an area of strength through the deployment of traffic marshals.
- 4.5. Heavy and complex lifting operations are being managed well and undertaken in a safe manner by a team of competent contractors and a specialist lifting team that led to the successful completion of the first phase of pre-cast planks on site.
- 4.6. There have been no Lost Time Injuries (LTI) across either period resulting in Accident Frequency Rates (AFRs) of zero for both months. The rolling 12-month AFR remains at 0.12 owing to the previously reported LTI in June 2021.
- 4.7. Two near miss incidents (an incident not causing harm but having the potential to cause injury or ill health) were reported in August, with three further incidents reported in September. The reporting of near misses continues to be encouraged in the pursuance of continual improvements and the Safety-First vision for the



programme. All near misses continue to be subject of investigation to identify root causes, lessons learned and action through improvements to prevent reoccurrence.

- 4.8. Three “undesired circumstance” (a set of conditions or circumstances - including poor procedures - that have the potential to cause injury or ill health) reports were noted, which is a reduction against the previous period. The reduction has been achieved through the direct positive impact from Safe Start briefings that take place each morning, allowing workers and supervisors to address safety concerns and engage in proactive planning and management of daily activities to mitigate the likelihood of incidents or undesired circumstances occurring.
- 4.9. There has been a 20 percent increase against the previous month in the number of safety observations which are submitted. This supports and evidences the programme’s maturing health and safety culture, with the information then utilised to inform the ongoing HSW initiatives rolled out in collaboration with the supply chain.
- 4.10. The identification of such events can be attributed to the vigilance on site that is encapsulated by this culture and is a result of the intensive HSW management.
- 4.11. A total number of 425 rapid COVID-19 tests were undertaken during the month of August 2021 on NLHPP, with two workers receiving a positive result to COVID-19. A total number of 377 tests were undertaken during the month of September 2021, with two workers receiving a positive result to COVID-19. The offer of testing provision has been extended to NLHPP visitors to help in reducing the risk of potential spread of COVID-19 to NLHPP workforce on site.
- 4.12. Following a review and feedback from contractors regarding close-proximity technology, it has been decided that close-proximity technology will be discontinued from NLHPP at the end of September 2021. This has been due to challenges arising in maintaining workforce compliance because of the easing of restrictions by the government.
- 4.13. In reaching this conclusion, the Programme Director discussed and agreed that a greater focus on COVID-19 awareness through communication and education on site, together with a stronger push toward the on-site rapid antigen testing, be pursued moving forward. All workers are encouraged to carry out two tests per week.
- 4.14. The Project continues to employ appropriate lines of defence to mitigate the potential for COVID-19 transmission through the workforce. The Project has thus avoided a breakout of cases amongst the workforce.

## **Health, Safety & Wellbeing Management**

- 4.15. Recent HSW campaigns covered Safe Working at Height in August and Safe Lifting Operations in September were designed to align with the commencement of EcoPark South steelwork erection. These campaigns include communications, stand-downs/safety talks, engagement and raising awareness of hazards and risk.

## **5. ENVIRONMENT AND SUSTAINABILITY**

- 5.1. This summary considers an overview of the Environment & Sustainability outcomes for the period ending August 2021.
- 5.2. Project contractors are continuing to identify and deliver good practice environmental outcomes. This is essential to maintain positive relations across the local neighbourhood and community.
- 5.3. Ultra Site status under the Considerate Constructors Scheme has been secured by Taylor Woodrow for the EcoPark South site. This represents exceptional performance at the forefront of industry best practice. Examples of Taylor Woodrow's practices include the use of ultra-low carbon concrete and alternative fuels for plant.
- 5.4. In the last period, zero environmental incidents and environmental related complaints have been reported. The monthly environmental site inspections with the contractors verified that environmental issues are being well managed in line with good practice and whilst also seeking opportunities for improvement.
- 5.5. The August site inspections focused on noise and vibration. The review confirmed that the principal contractors (Taylor Woodrow and Barhale) are aware of their obligations and measures are in place to effectively manage noise and vibration impacts associated with their work activities.
- 5.6. More than 99% of non-hazardous construction, demolition, and excavation waste (CDEW) has been diverted from landfill. For example, excavated soil has been used in backfilling applications at Elsenham Quarry and in restoration activities at the Veolia Rainham landfill. More than 50,000 tonnes of material has been reused at Wanstead Rugby Club.
- 5.7. The positive interest in environmental matters from across the team has been met with the publication of several news articles on the NLHPP Intranet on invasive flora species, noise mitigation, air quality and waste management.

## **6. RISK SUMMARY**

- 6.1. The overall risk position of the programme has remained relatively steady over the last period in line with progress as a whole. There have been some reductions in

risk exposure noted within individual projects through active mitigations and the completion of underlying construction or development activities.

- 6.2. The “programme level” risks (those that apply across multiple projects or affect the overall programme’s delivery directly) are the subject of in-depth review currently. Notable areas that remain programme level risks are associated with site traffic and logistics, coordination with third parties, including LEL and Energetik (who are constructing their district heating energy centre at the southern end of the EcoPark).
- 6.3. The programme team continue to take a proactive approach to managing the future uncertainties:
  - 6.3.1. Regular sessions are being undertaken between LondonEnergy Ltd, the EcoPark South team and Energetik to manage the interface risks on site. To date, these sessions have greatly improved coordination between design development, construction and operational interface requirements and subsequently the delivery of works.
  - 6.3.2. The national shortage of materials and the consequent variation in prices remains a key risk to the programme. The programme is still forecasting a potential five week delay to the EcoPark South contract because of this risk. To mitigate this the contractors, have re-sequenced and brought forward deep drainage and concrete floor works. There is also an exercise planned to review materials and make provision for early procurement of items not yet purchased.

## **7. SOCIAL VALUE**

- 7.1. This section updates Members on the activity in the social value workstream, with this month’s update highlighting the engagement with schools which is now underway as restrictions have lifted. Progress also continues with the appointment of apprentices and more on-site skills training placements being successfully delivered.
- 7.2. Throughout September, the social value team has been engaging with NLWA boroughs and local schools to implement the schools programme. This included producing a careers insight video for an assembly at Highlands School (London Borough of (LB) Enfield) to showcase the range of careers available on the NLHPP, as shown in the photograph below. The school will also be rolling out the NLHPP schools programme content next half term.

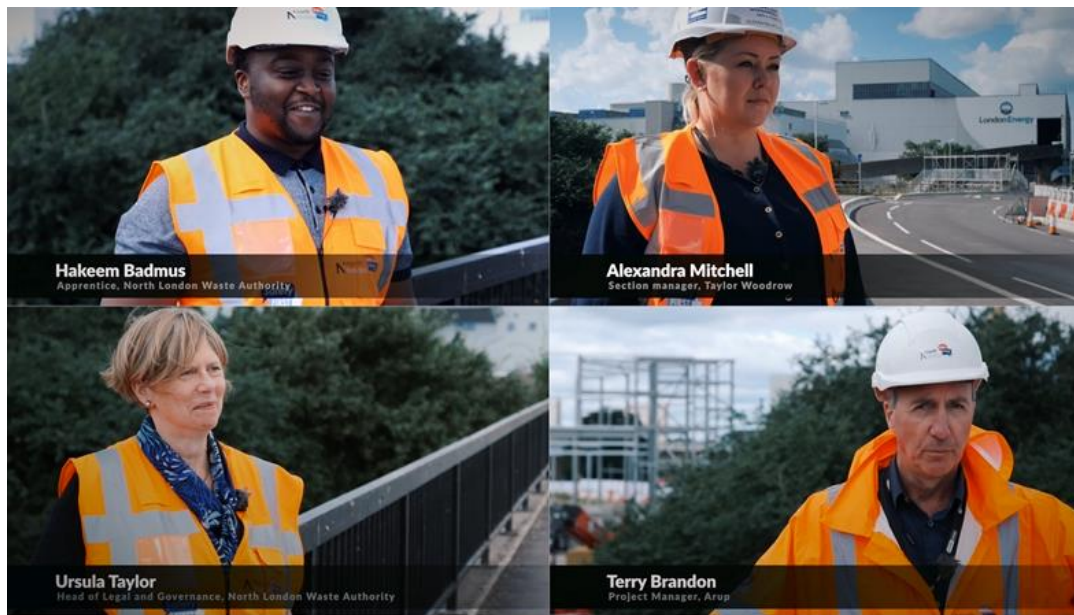


Figure 6 Careers insight video screen capture

- 7.3. Engagement also progressed with LB Hackney, LB Islington and LB Haringey. Details of the schools programme have been shared with 10 schools in LB Hackney, focusing on Key Stage 3 students initially. The team is also liaising with a school in LB Islington interested in taking part in the programme. Further sessions are planned with local schools in LB Haringey (Haringey Sixth Form College) and LB Waltham Forest (Leytonstone School) which will be delivered in October and November respectively.
- 7.4. The team has been engaging with officers at LB Haringey to identify further local schools for the programme, making contact with Duke's Aldridge Academy in Northumberland Park. Further engagement is ongoing about the possibility of aligning the delivery of the schools programme with the youth action plan being planned for the borough.
- 7.5. Now that face-to-face engagement with schools has resumed, the project is looking to expand the schools programme further. The project team will consider what would be beneficial in terms of engagement with local primary schools to provide an understanding about the project and provide an early introduction to children about careers in construction, engineering and the waste management sector.
- 7.6. A new apprentice has been appointed on the NLHPP with Taylor Woodrow (the EcoPark South contractor). The apprentice is from LB Enfield and will be undertaking a business administration apprenticeship. Two further apprenticeship opportunities are expected to be filled over the next month with Lorclon, a sub-contractor on the EcoPark South contract.

- 7.7. In total, 19 apprenticeships have been created on the project. The Social Value Dashboard in Appendix A shows that 53% of apprentices are from BAME groups and 16% are women.
- 7.8. NLHPP apprentices are continuing to connect on the project through the monthly Apprentices Network sessions, which allow them to share experiences, get to know each other as well as learn more about their respective organisations. The latest event was held in October, which included a Q&A session on careers advice and progression led by a Taylor Woodrow engineer.
- 7.9. The latest Apprenticeship Forum session which connects NLHPP contractors took place in October with the EcoPark South contractor and sub-contractors. The session was used to plan for recruitment of new apprentices on the project and sharing lessons learnt.
- 7.10. A further cohort of on-site skills training placements was delivered in October by Taylor Woodrow, in partnership with The College of Haringey, Enfield and North East London (CONEL). The cohort was highly successful, with the new training format helping to overcome challenges of dropout rates and resulting in 16 completed placements. One of the trainees has been offered a six-week placement with Taylor Woodrow. The social value team is liaising with CONEL about capturing the outcomes for trainees who completed the placements to date through a learner progression survey.
- 7.11. Members of the project team attended the Green Jobs Fair in Waltham Forest aimed at young people aged 16-25 from underrepresented backgrounds. The event was an opportunity to promote the NLHPP apprenticeships and training placements to potential candidates. This included “speed meets” with job seekers to provide advice to applicants on a one-to-one basis. The event also enabled the team to connect face to face with partners in Waltham Forest to discuss collaboration and ongoing social value initiatives.
- 7.12. Equality, diversity and inclusion remains a priority on the social value agenda. The project has been looking into the most effective ways to encourage women into the construction industry, with evidence pointing to face to face engagement and schools as being a key tool to reach underrepresented audiences. In addition to engaging with young people through the schools programme, liaison is ongoing with CONEL about delivering careers insight sessions to the college’s women-focused construction courses to encourage entrants into the industry.
- 7.13. The delivery of the community projects workstream of social value will commence with the delivery of the ERF contract and will be included as part of the contractor’s social value plan. In preparation for the workstream, the team has undertaken a local needs assessment and engagement with the community liaison group to establish local priorities and initiatives which would be most beneficial. This will be

used to inform and prioritise the delivery of the workstream as the ERF contract commences.

## **8. COMMUNICATION**

- 8.1. The communications team have been focused on providing more in-person opportunities to engage with the local community. This has mainly been in the form of roadshows and a programme of activity to provide opportunities in communities across North London is underway.
- 8.2. Press activity has focused on providing updates on the construction progress with the successful completion of the Sewer Diversion works and footage of progress on steelworks for the Resource Recovery Facility. A BBC documentary, The Earthshot Prize, was highlighted in NLHPP communications for referencing an energy recovery plant in Copenhagen using the same advanced technology for improving air quality as the NLHPP. This was an extremely positive reference to how energy recovery facilities are an exemplary technology for the waste industry to reduce their climate impact and improve air emissions. You can read NLHPPs coverage of the documentary here: <http://northlondonheatandpower.london/news/sir-david-attenborough-s-earthshot-documentary-praises-sister-plant-to-north-london-heat-and-power-project/>
- 8.3. Further engagement is taking place to offer briefing meetings on the project with stakeholders including council leaders, Councillors, borough officers and community groups. The team is continuing to respond to resident enquiries and keeping the NLHPP website updated with the latest news.

## **9. EQUALITIES IMPLICATIONS**

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

## **10. COMMENTS OF THE LEGAL ADVISER**

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

## **11. COMMENTS OF THE FINANCIAL ADVISER**

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

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**APPENDIX A      PROGRAMME SUMMARY**





# Programme Committee 11 November 2021

## Appendix A – Programme Summary





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## Note:

- 1. Project Health Check is current at mid-October**
- 2. Schedule and Health, Safety & Wellbeing Summary current at end of August reporting period**
- 3. Social Value Dashboard is current at end-September**



# Project Health Check (at mid-October)



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	n/a		n/a		n/a		n/a		Completed	
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	n/a		n/a		n/a		n/a		Completed	
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 August)



Milestone (Critical)	Baseline Date	Forecast Date	Deviation to Baseline Programme (weeks)	Recovery Plan
Complete Sewer Diversion Enabling Works	01-Sep-21	01-Sep-21	0	
Eco Park South - Commence steel frame installation	24-Jun-21	26-Jul-21	-4	Complete
Eco Park South - Commence M&E installation	03-Sep-21	06-Dec-21	-13	EPS materials shortage delays roof cladding procurement (6w)
Eco Park South - Commence Testing & Commissioning	11-Apr-22	30-Jun-22	-11	EPS consequential delay including (2w) mitigation
Eco Park South - RFPF & RRC - Planned Sectional completion (RFPF and RRC ready for transition)	04-Aug-22	13-Oct-22	-10	EPS consequential delay including (1w) mitigation
Eco Park South - LEL Vacate the Temporary Bulky Waste Facility (Operational Commencement of RRF)	26-Oct-22	06-Dec-22	-6	EPS consequential delay
Northern Area Clearance - Eastern Section is cleared and available to the ERF Contractor (IF E7-5)	29-Jul-22	13-Sep-22	-6	
Northern Area Clearance - Northern Area Western Section is cleared and available to the ERF Contractor	28-Feb-23	12-Apr-23	-6	EPS consequential delay
ERF - Notification Of Contract Award Decision	17-Dec-21	17-Dec-21	0	
ERF - Environmental Agency (EA) Approval of Pilling	01-Aug-22	01-Aug-22	0	
ERF - Procurement - Access Date - Phase 1 Eastern Area	03-Oct-22	15-Nov-22	-6	
ERF - Access Date - Phase 2 Western Area	01-Mar-23	13-Apr-23	-6	
ERF - Construction Complete	30-Sep-25	12-Nov-25	-6	
ERF - First Fire on Waste	19-Dec-25	02-Feb-26	-6	Note: Tender dialogue to define First Fire on Waste completion criteria
ERF - Completion of The Take Over Certificate (Liquidated Damages Milestone)	31-Mar-26	13-May-26	-6	EPS consequential delay
ERF - Performance Guarantee Tests Complete (PGT <sub>2</sub> Inc. availability)	25-Feb-27	09-Apr-27	-6	EPS consequential delay
ERF - FINAL TAKE OVER (Final Certificate)	30-Mar-28	12-May-28	-6	EPS consequential delay
Energy from waste (EfW) - Laydown Area Re-Instatement - Operational Acceptance Period – Complete	10-Jul-30	20-Aug-30	-6	EPS consequential delay
Southern Access Widening (SAW) - Operational Handover Complete	15-May-31	25-Jun-31	-6	EPS consequential delay

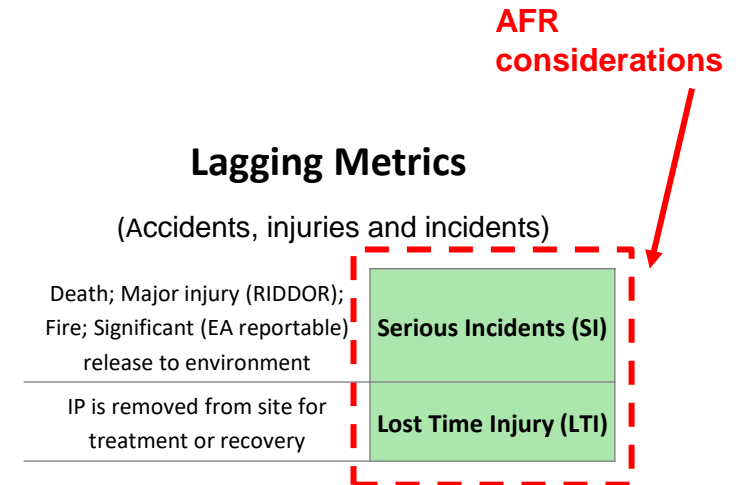


# Health, Safety & Wellbeing (HSW) Dashboard

## (Explanation of Terminology)



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>	$[(\text{Number of injuries in the period}) / (\text{Total hours worked during the period})] \times 100,000.$	The AFR takes into account the first 2 lagging metrics: Serious Incident (SI) and Lost Time Injury (LTI), as highlighted in an excerpt from the Lagging Metrics table.





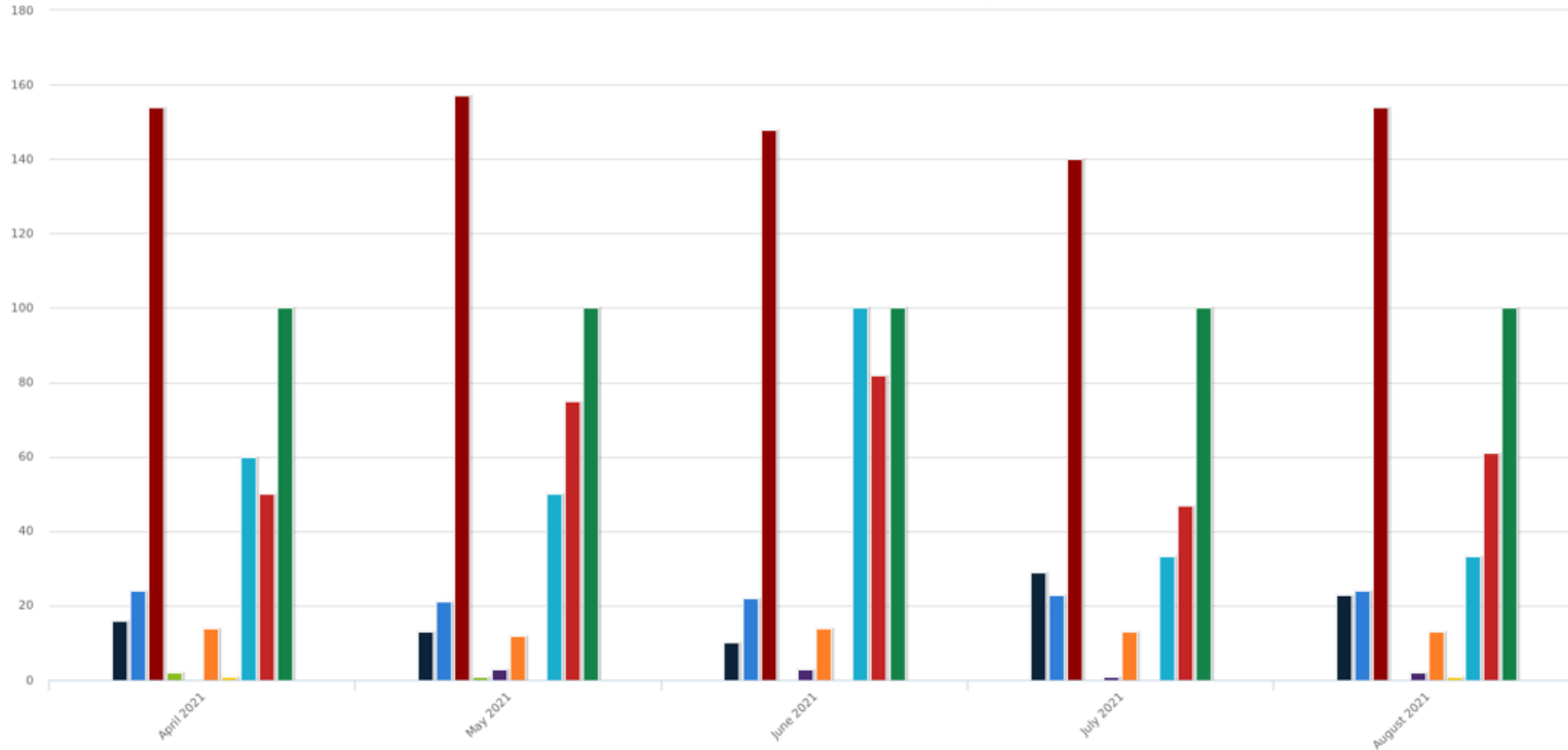
# Health, Safety & Wellbeing (HSW) Dashboard

## (Summary of Leading Performance Metrics)



NLHPP HSW Leading KPI Trend

NLHPP HSW Leading KPI Trend

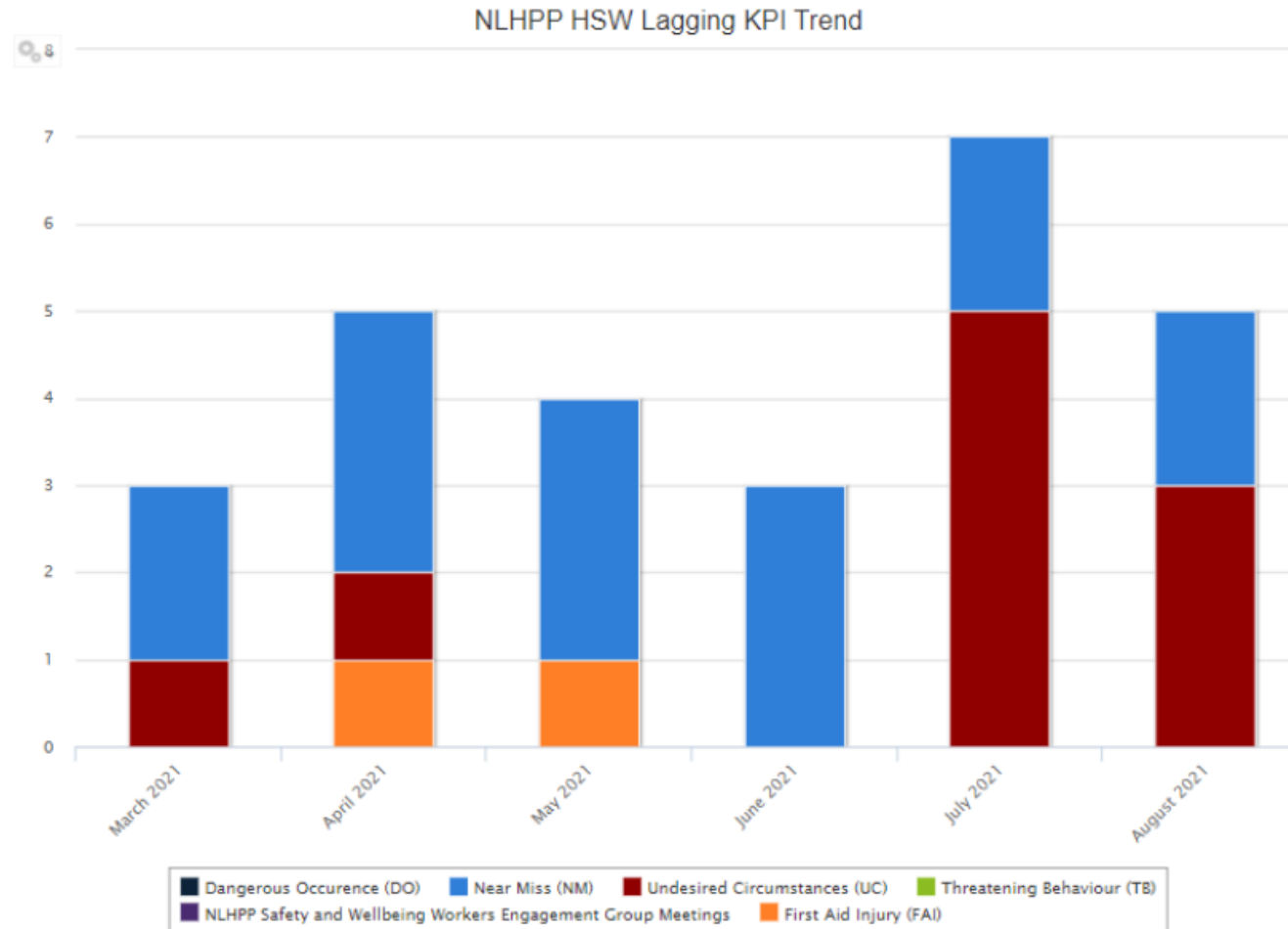


■ Occupational Health Engagements (Surveillance, Checks, Mental Health training, Visits, Surgeries, Promotions etc.)
 ■ Health, Safety & Wellbeing Training (Toolbox Talks, RAMS Briefings, W@H, Confined Space, CDM Etc)
 ■ Safe Start
 ■ Lessons Learned
 ■ SLT Safety Tour Visits (No of Persons and Feedback Forms)
 ■ Audits
 ■ Design Risk Management - Red Items in Live RAG List
 ■ HSW RAMS Acceptance Success Rate -Pass 1st Time
 ■ Safety-Observation
 ■ Percentage of Workers Inducted (Average)



# Health, Safety & Wellbeing (HSW) Dashboard

## (Summary of Lagging Performance Metrics)







# Health, Safety & Wellbeing (HSW) Dashboard (Accident Frequency Rate)



## Accident Frequency Rate (AFR<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 below represent the AFR corresponding to the reporting period, the rolling 12 month and the construction industry average.*





# Health, Safety & Wellbeing (HSW) Dashboard (Project Compliance Audit Results)



Site Inspection Summary		
Site	Summary Report	Inspection Compliance Scores
<b>E2C—Sewer Diversion Main Works</b>	Site compliance score 97.07%. All 3 sites (Shafts A, B, C) are now complete. During this month Barhale were demobilising at differing degrees on all shaft areas, with welfare/cabins being removed or being prepped for removal. Senior site staff and operatives are willing to assist and are fully engaged with the scope of operations. The site conditions were tight with plant ready to be removed from site, perimeter fencing/hoarding being stockpiled and other materials ready for collection. There was adequate supervision and banksmen available. There will be no further inspections as the Contractor has now left the project.	25th Aug 2021 - 97.95% 19th Aug 2021 - 98.45% 12th Aug 2021 - 95.66% 5th Aug 2021 - 96.21%
<b>E3A—Eco-Park South</b>	Site compliance score 95.6%. Site activities include ground beam in RFPF, RRC and EPH. Steel erection continuing with complex crane lifts planned for WC 6th September. Rebar works in cofferdam and concreting. Adequate welfare arrangements in place. COVID-19 arrangements working well. Operatives following RAMS and wearing correct PPE. Mechanical lifting operations related to steel erection works to RFPF stopped until ground conditions are assessed and checked it is fit for loading. Areas well demarcated and site well controlled. General foreman and black hats collaborative. Unsafe acts detected while working at height from MEWP. It is worth mentioning that High Risk RAMS need to be submitted following the existing procedure in place and uploaded to Asite for comments.	31st Aug 2021 – 94.18% 25th Aug 2021 – 94.47% 17th Aug 2021 – 92.2% 11th Aug 2021 – 97.53% 4th Aug 2021 - 98.21%
<b>E3b—Northern Area Clearance</b>	Site compliance score 96.50%. Work has commenced on groundworks with plant being used to for levelling. Gas testing tubes are being decommissioned and sealed. Site logistics have again been considered with satellite welfare being made available ‘on-site’ in addition to the existing welfare/offices. Conditions are clean and site management including the contractor are diligent and cooperative.	26th Aug 2021 – 97.69% 18th Aug 2021 – 96.71% 10th Aug 2021 – 93.53% 3rd Aug 2021 - 98.08%



# Social Value Dashboard Summary – October 2021



Social Value Theme	Definition	Target	Progress
<b>Development Consent Order (DCO) Obligations:</b>			
<b>Apprenticeships</b>	S.106 obligation to provide 100 apprenticeships, each with a duration of 12 consecutive months. Apprenticeship means a training work scheme: (a) offered to a person ordinarily resident in the Local Area; (b) in any sector which directly relates to, and other work associated with the Project; (c) which, once successfully completed, will result in a nationally recognised qualification for the apprentice (including but not limited to NVQ Level 3 and 2); (d) at a minimum of 30 hours per week; and (e) offered on at least equivalent terms and conditions of employment to those benefitting Equivalent Workers, including paying a wage in accordance with industry norms	<b>100</b>	<b>54</b> years of apprentices' employment <b>19</b> individuals
<b>On-site Skills Training Placements</b>	S.106 obligation. 'On-Site Skills Training' means no less than 225 training placements offering relevant skills training in various sectors and provided throughout the Construction and Demolition Period, each placement being: (a) primarily on-site within the Application Site, but which may have an element of off-site classroom training; (b) offered on at least equivalent terms and conditions to those benefitting Equivalent Workers including paying a wage accordance with industry norms (if applicable); (c) one week duration; (d) provided to a school or college leaver, or an adult who has not been employed in the construction industry during the previous six (6) months.; and a person undertaking such a training placement shall be an 'OSS Trainee'.	<b>225</b>	<b>72</b>
<b>LB Enfield targets, adopted as measure by NLHPP:</b>			
<b>Local Labour</b>	Target to promote local employment. Contractors should employ suitable candidates from the local area (London Boroughs of Enfield, Haringey and Waltham Forest)	<b>25%</b>	<b>26%</b>
<b>Local Businesses</b>	Target to maximise contractors' expenditure within the local area (London Boroughs of Enfield, Haringey and Waltham Forest)	<b>10%</b>	<b>25%</b> <b>£5.66m</b> (local spend by contractors to date)
		<b>-</b>	<b>£14.76m</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. Representation of women varies across different trades and nature of the roles. Monitoring continues to establish reliable benchmark comparisons.	<b>-</b>	<b>4%*</b>
	The project aims to promote Black, Asian and Minority Ethnic (BAME) Groups in on-site construction workforce. Monitoring continues to establish reliable benchmark comparisons.	<b>-</b>	<b>20%*</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.

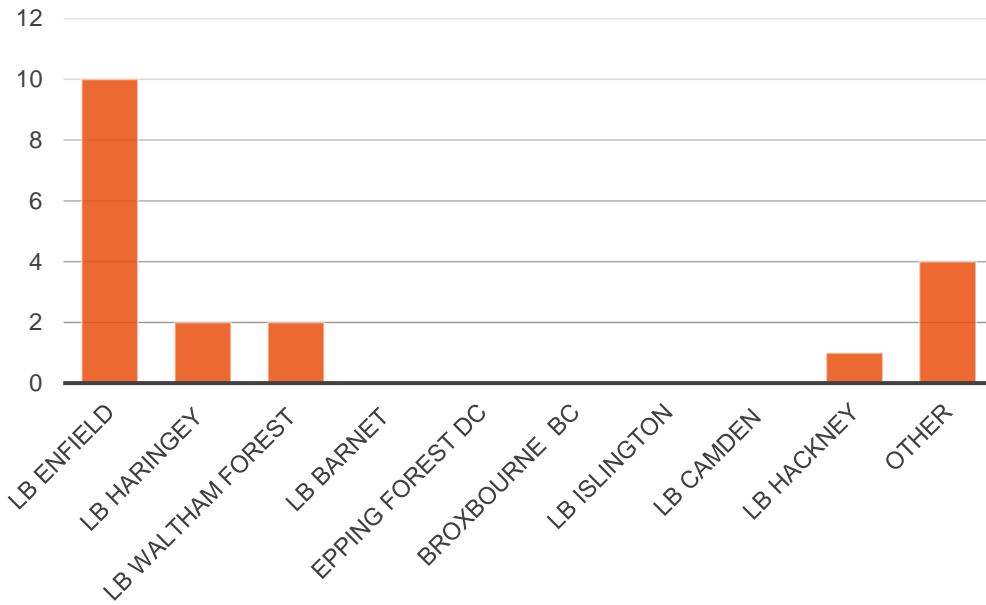


# Social Value Dashboard

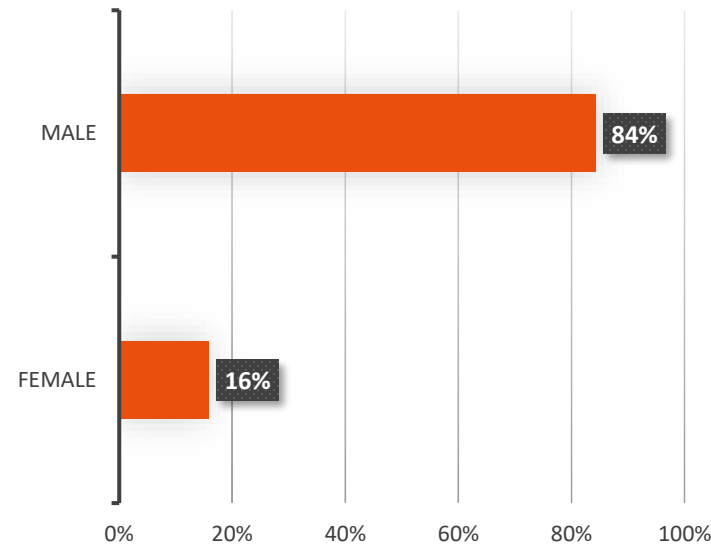
## Apprenticeships



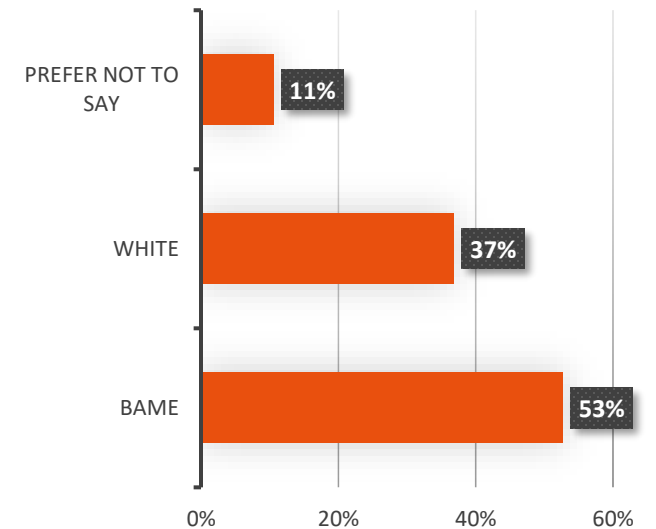
### Apprentices - Home Borough



### Apprentices - Gender



### Apprentices - Ethnicity



Apprentices – Home Borough	Local Wards
LB Enfield	Upper Edmonton (1); Turkey Street (1); Southbury (1); Palmers Green (1); Lower Edmonton (1); Jubilee (3); Grange (1); Chase (1)
LB Haringey	Tottenham Hale (1); Seven Sisters (1)
LB Waltham Forest	Higham Hill (1); Larkswood (1)
LB Hackney	Haggerston (1)

#### Delivery & Monitoring:

Data on origin, ethnicity and gender relating to apprentices is collected from contractors on site for monthly reporting.

Local employment and recruitment of apprentices is prioritised in the contract (in particular in LB Enfield, LB Haringey and LB Waltham Forest, followed by other north London boroughs).

All construction contractors have policies to encourage equality and diversity in their recruitment practices. They have obligations under the contract with NLWA to eliminate all forms of discrimination in employment practices in accordance with an established single equality scheme.

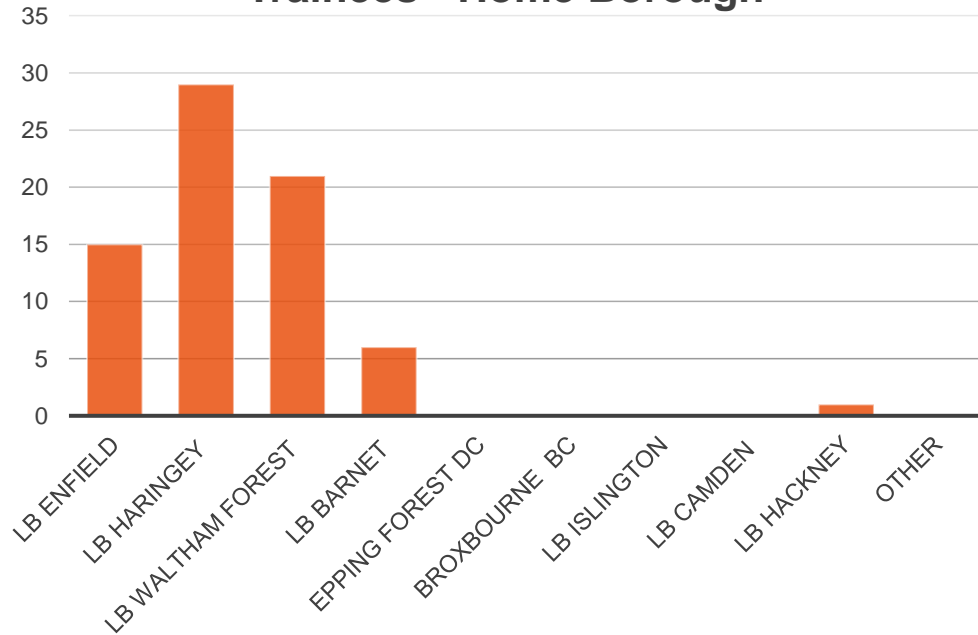


# Social Value Dashboard

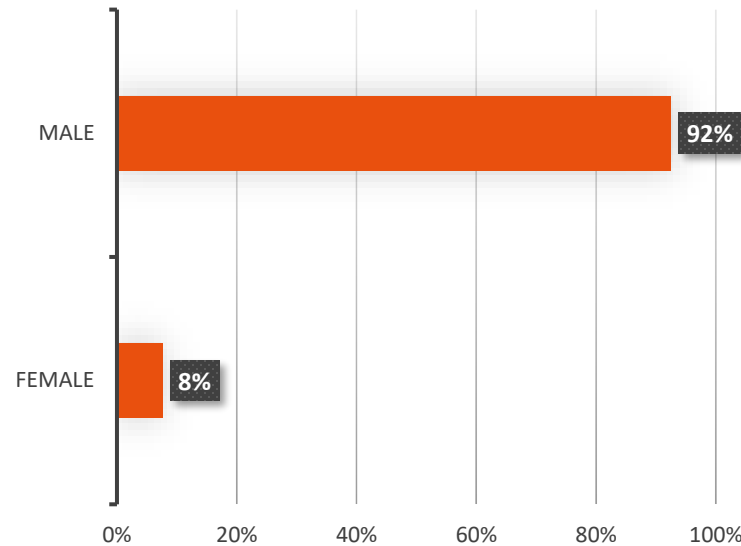
## On-site Skills Training Placements



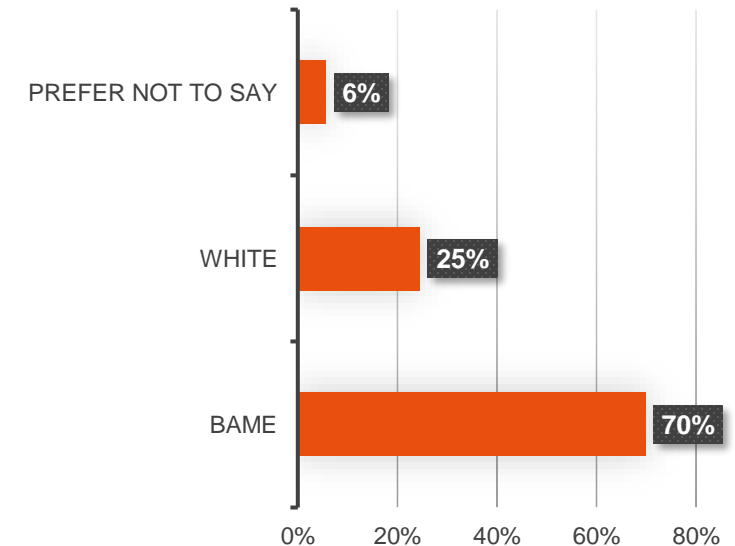
### Trainees - Home Borough



### Trainees - Gender



### Trainees - Ethnicity



#### Delivery & Monitoring:

Delivery of training placements is targeted at a variety of EDI groups. To date, all trainees are from groups forming part of our EDI categories including long-term unemployed and lone parents.

Training placements are prioritised for local residents (in particular in LB Enfield, LB Haringey and LB Waltham Forest, followed by other north London boroughs). Recruitment of trainees is facilitated through engagement with local Job Centres and agencies.

EDI data relating to the on-site trainees is collected through an end of placement survey and where possible supplemented by information from the training provider. Not all respondents have chosen to report on ethnicity and gender. Information is based on a responses from 53 out of 72 trainees (74%).