

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: 14 JANUARY 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: 4 JANUARY 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 November 2020. This is the most recent reporting period for which project-approved data is available at the time of preparing this status report to Members. 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. At the end of 2020, despite the impact of COVID-19 on working arrangements, the Project remains on track to deliver to programme and cost objectives as agreed in the March 2019 baseline.
- 2.2. Multiple major procurement events have proceeded on schedule, while on site, construction milestones have been achieved despite the temporary suspension to works earlier in the year.
- 2.3. The Northern Access commences operation in January 2021. This project has involved extensive remediation of Deephams Farm Road and creation of a new access to the EcoPark. On completion of the construction and commissioning, it will be transferred into operation and managed by LEL for both waste management and construction vehicle access. This will help mitigate the risk of traffic delay or congestion on the EcoPark associated with the increase in construction traffic alongside existing waste management operations.
- 2.4. Notable achievements in the previous period include the following:

- 2.4.1. The tender assessment for the demolition works for the Northern Area Clearance project (NAC) has been completed and the contract awarded to DSM Demolition Ltd. The onboarding of the contractor team will begin in January, shortly followed by mobilisation on site. The scope of this is to remove the decommissioned In-Vessel Composting (IVC) and Ash-processing facilities, providing the footprint for the temporary bulky waste facility to be constructed, for which the tender process commences in the first quarter of 2021.
- 2.4.2. The contractor's detailed design for the foundations for the RRF have been agreed with Thames Water and the Environment Agency in relation to the re-aligned Chingford Sewer that will pass under the RRF. The design has reduced the need for piled foundations, with associated cost, programme and safety benefits.
- 2.4.3. On site, the temporary "bypass road" has opened in the south of the EcoPark following completion by Galldris. This was delivered as part of the Sewer Enabling Works project and allows closure of the eastern perimeter roads at the EcoPark, needed for construction of the Sewer Diversion.
- 2.4.4. Following agreement with LondonEnergy, the Authority has now completed its acquisition of the long lease of the EcoPark excluding the area of the current Energy from Waste plant.

Current Key Activities

- 2.5. The Laydown Area project is due to finish in the early part of the new year. Detailed planning is underway to confirm the precise approach and timeline of handover for each asset as they are completed (e.g. car parking, welfare facilities, access routes). This naturally has implications for the EcoPark South contractor's initial mobilisation and logistics plans; the NLHPP team are working with both Taylor Woodrow and Buckingham (Laydown Area contractor) to ensure that scheduled handovers are agreed.
- 2.6. Following agreement with the Lee Valley Heat Network (LVHN, otherwise known as Energetik), the change to the sewer alignment has been agreed and implemented. Barhale, the contractor for the sewer diversion works, has now commenced work at the relocated manhole "C". The change allows for a coordinated approach to the sewer works needed by both NLHPP and LVHN and allows Barhale to deliver these on behalf of both parties.
- 2.7. There will be increased traffic on the EcoPark from the first quarter of 2021 as Taylor Woodrow mobilise to site. The traffic steering group is now in place and meeting regularly to agree logistic plans and monitor and manage activities, with traffic modelling work also ongoing to inform decisions. The group is managing the

risk of congestion impacting construction progress whilst mitigating any adverse impact on waste management operations. Borough officers will be engaged with as part of the review of options to ensure arrangements will support all parties.

- 2.8. Notice To Proceed for the start of construction under the EcoPark South contract is scheduled to be reached in January. A wide range of workstreams are progressing to ensure that Taylor Woodrow have met the criteria to progress through this stage. This includes development of a co-ordinated design and delivery plan, confirmation of cost and schedule targets and delivery of submissions required to obtain key third-party consents. Issuing of the notice by the Authority is a major milestone and signals the commencement of construction works on site as well as procurement of long-lead items, for example, the structural steelwork.
- 2.9. Once Taylor Woodrow have mobilised to site and taken over the full welfare facilities within the Laydown Area, the intention is for the relevant NLHPP team members to co-locate with them in the office building. This builds on the initial, smaller, co-location in Taylor Woodrow's own offices, and is a key part in the collaborative working approach. It will enable fast flow of information between parties and a much quicker ability to respond to arising issues on site and efficient decision-making. Precise requirements for the NLHPP space, taking account of potential COVID-19 scenarios, are being reviewed and will be finalised at the start of 2021.
- 2.10. Planning is underway for commissioning the built assets and transitioning them into operation. To support the programme, a Commissioning Lead has been appointed to the Project and a Commissioning Panel has been established to provide the oversight and assurance needed for successful delivery. While technical testing is a core element of the commissioning process, success will also depend on ensuring competent resources and working processes are in place, and that asset information is suitably developed, controlled and transferred.

3. PROJECT DELIVERY SUMMARY

Overall Progress

- 3.1. Construction continues to progress well and in accordance with the baseline programme. All worksites are operating efficiently despite the restrictions of social distancing. Other protection measures against the transmission of COVID-19 remain in place and are constantly reviewed to ensure the project is using exemplar practices.
- 3.2. The volume of construction work in the EcoPark had increased prior to the last report and has remained stable since then. Detailed logistics planning for a further increase in activity has continued with LEL ahead of the start of work on the RRF construction in January.

- 3.3. The sewer diversion has nearly completed the extensive excavation for the 12m diameter access shaft for Manhole A and started the access shaft for Manhole B which is a key step forward towards the start of the tunnelling between them.
- 3.4. The modular project site offices and welfare facilities in the Laydown Area have continued to be being fitted out for occupation by February 2021.
- 3.5. The completion of the RRF remains critical to the achievement of access to the western half of the ERF construction footprint although it continues to be forecast to complete six weeks later than required. Work is continuing to examine a recovery plan for the six weeks within the remainder of the programme.
- 3.6. In recognition of the planned growth in construction activity on site, work continues to plan how waste management and construction traffic will be accommodated in the EcoPark, at its access points and within the local road network.
- 3.7. 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 November reporting period.

Laydown Area and Eastern Access (Project E1a2)

- 3.8. Construction work has made good progress on site, although there has been a delay to the resurfacing of the existing bridge over the Lee Navigation due to additional remedial work needed to its concrete deck. This has delayed the opening of the new Eastern Access to February 2021. The fit out of one of the three floors in the modular welfare block has been completed.
- 3.9. The photograph below shows the Laydown Area under construction with the EcoPark in the background. On the left of the image is the new three storey project modular office building. The rest of the photo shows the car parking which is substantially complete and access ramp connecting the Laydown Area to the new Eastern Access road to the EcoPark.



Northern Access (Deephams Farm Road) (Project E1b)

- 3.10. Construction work has made good progress and is scheduled to be complete in December. Initially the road will be used by construction traffic servicing the northern area demolition which starts in January 2021.
- 3.11. The photograph below shows the construction of the footpath along Deephams Farm Road being constructed by the placing of its gravel base using an excavator. The photograph also shows the kerbs and base to the new road.



Sewer Diversion Enabling Works (Project E2b)

- 3.12. The clearing of services in preparation for the construction of the shaft for Manhole B has been completed. The focus is now turning to the taking over of the site of the shaft for Manhole C adjacent to the Southern Entrance. The bypass to the Western Road has been completed and is in operation as part of the EcoPark traffic network.

Sewer Diversion Main Works (Project E2c)

- 3.13. The contractor Barhale has largely completed the excavation for the first of three 12-metre diameter shafts (called manholes A, B and C) which are used to install, drive and extract the Tunnel Boring Machines. The excavation for the shaft for manhole B has started.

- 3.14. The photograph below shows the 12m diameter concrete lined shaft being excavated for the start of the tunnelling from manhole A. It shows the yellow jacks that push the concrete lining segments into the ground as the shaft is dug out.



- 3.15. The change of route of the Enfield leg of the sewer has been formally incorporated into Barhale's contract, thereby enabling Energetik's District Heating Energy Centre to start construction in the next year on the EcoPark.

EcoPark South (Project E3a)

- 3.16. The team has continued to make good progress towards the issue of the Notice to Proceed to the contractor Taylor Woodrow in January 2021. A successful interim review of Taylor Woodrow's progress with the detailed design and management plans has been carried out by the team in December. Notice to Proceed marks the start of the second stage of the Design and Build contract and will confirm the agreed scope of the works, its design and construction costs.
- 3.17. The design developed by Taylor Woodrow and their design team has been reviewed for co-ordination across design disciplines and the project team against the employer's requirements. The details of the contractor's designed foundations have been agreed with Thames Water and the Environment Agency in relation to the re-aligned Chingford Sewer that will pass under the RRF.
- 3.18. A detailed timetable for the construction and commissioning of the RRF and EcoPark House has been agreed with Taylor Woodrow as being compliant with their contract. The timetable is being used to plan in detail the co-ordination of their work with that of the sewer diversion by Barhale and the District Heating Energy Centre by Energetik, to de-risk the schedule and find ways to bring forward critical activities to enable the RRF to be completed six weeks earlier.

- 3.19. The period between the scheduled completion of the construction of the RRF and the date by when transition of operations to it need to be completed remains critical to enabling the ERF construction. The team are working with LEL on ensuring that this is done as efficiently as possible to de-risk delay to the ERF.

Northern Area Clearance (Project E3b)

- 3.20. The tenders for the initial work to demolish the redundant facilities in the western side of the future ERF footprint has been assessed and the contract is in the process of being awarded before the end of December as planned.
- 3.21. The outline design for the temporary Bulky Waste and Fuel Preparation plant is being finalised to enable the procurement of its design and construction in 2021. This facility enables the ERF construction to start on time in October 2022 in the area of the current Bulky Waste and Fuel Preparation plant.

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

- 3.22. The detailed design of the future incoming gas supply main and wayleave agreements continues to be progressed by Cadent and will lead to the procurement in 2021 of the installation works.
- 3.23. The co-ordination of utilities continues with the work on the utility master plan and survey works on site to verify the position of existing services assumed in the overall design.

Energy Recovery Facility (ERF) (Project E7)

- 3.24. The shortlisted organisations continue to work on their submissions for detailed solutions for dialogue and leading to a recommendation for an award of contract in December 2021.

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

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

4. HEALTH, SAFETY & WELLBEING (HSW)

- 4.1. This section provides an update on the Health, Safety and Wellbeing (HSW) performance of the Project and includes performance data related to the November reporting period.

Health, Safety & Wellbeing Performance

- 4.2. Zero serious or loss time incidents have occurred in the reporting period. A more detailed performance dashboard for the project is included at Appendix A. The Accident Frequency Rate (AFR) for the project is effectively zero, well below the construction industry average of 1.33. The AFR is a measure of the number of accidents compared to hours worked is more fully explained in Appendix A.
- 4.3. The resurgence of COVID-19 and increasing rates of infection in the South-East pose an increased risk to the Project. Following review and planning in the previous period, personnel on-site tracking technology has been introduced to the programme on a trial basis. This enables the programme to assess compliance with site safety rules relating to social distancing, implementation of “work bubbles”, and quickly identify emerging needs for isolation.
- 4.4. Construction Design and Management Regulations (CDM) compliance across the programme has been assessed with a tracker prepared, confirming high performance and compliance across the board.
- 4.5. Independent site audits undertaken by the HSW Site Health and Safety Assurance Manager have yielded good levels of compliance across 5 sites and 20 audits in the reporting period. The lowest compliance level was reported at 91%.
- 4.6. Three minor events have been reported in the current period and are being investigated with a view to employing lessons learned:
 - 4.6.1. A First Aid incident following a Taylor Woodrow employee collapsing in site cabins. The injured person was taken to hospital and has recovered.
 - 4.6.2. A Taylor Woodrow operative was removed from the EcoPark South project for repeated non-compliance with site rules. These included not following Risk Assessments and Method Statements (RAMS) and leaving site without authorisation via uncontrolled routes.
 - 4.6.3. Taylor Woodrow solar batteries were stolen from their on-site compound.

Health, Safety & Wellbeing Management

- 4.7. The Health & Safety Working Group is now well established providing a platform for resolving issues and communicating the vision to deliver an integrated approach to HSW across the Project and LEL operations. An action tracker is managed as part of the forum to monitor inputs and outputs from the group.
- 4.8. Development of a digital tool to assist and simplify HSW observations, incident management, safety tour reporting and contractor metrics is now complete along with the NLHPP “Safety First” Induction Video which provides all the workforce

with the client's Safety First perspective and will be shown at all contractors' employee inductions. These improved protocols are being communicated through a HSW communications campaign in December, with a view to full implementation from January 2021.

- 4.9. The NLHPP were represented at a HS2-chaired Major Projects collaboration meeting, focusing on HSW Benchmarking & Performance Indicators. Also present were representatives from HS2, Tideway, Crossrail, Highways England, and the Hinkley Point C.
- 4.10. There is ongoing implementation of the NLHPP Wellbeing for Life strategy, including an action plan and communication programme for 2021. A NLHPP HSW employee awards procedure has been developed, starting in 2021.

5. RISK SUMMARY

- 5.1. Risk management activity has continued through the period with monthly project and programme level risk reviews progressing. There was a decrease in the overall number of live risks at November period end due to the completion of the Transport Yard Relocation project. The Laydown Area West, Northern Access and Sewer Diversion projects are moving towards completion and therefore the risks are being reassessed and closed. A joint risk review with LEL has been scheduled for January to review key risks and mitigation actions.
- 5.2. The following risks continue to be the key "proximity" risks, i.e. they will either occur or require significant mitigating actions in the next 6 months.
 - 5.2.1. Works on site may clash with unforeseen underground services and/or assets that have the potential to cause harm/damage and/or disruption to people or operations. Mitigations include a continued build up information base 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 way and 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 owner and status (live, redundant etc) of service if uncharted services are encountered.
 - 5.2.2. Programme interfaces with LEL operations may significantly impact construction and delivery beyond known constraints. Ongoing mitigations include a traffic management working group established to review and monitor the management and coordination of waste operational traffic movements and access/egress to EcoPark. Traffic modelling is being undertaken using a simulation software package, to inform on decisions

for the phasing of operational traffic and management adjustments to traffic that keep EcoPark within capacity of entrance and egress infrastructure.

5.2.3. There is still some uncertainty around the schedule, financial and/or health and safety implications to NLHPP as a result of COVID-19. The programme's mitigation actions which included modification of welfare facilities and reviews of the impacted schedules after the initial shut down have reduced this risk significantly. There is however some residual risk which is being managed by a cross programme COVID-19 taskforce set up to monitor COVID-19 risks and review programmes response to changing risk on a weekly basis. Project level commercial and schedule reviews of contractor proposals are being undertaken with a continuous dialogue occurring between all stakeholders during decision making to further mitigate risk. In addition, the programme is trailing track and trace technology on site, enabling effective social distancing.

5.3. A key high-impact risk relates to the consequences of Brexit. Potential impacts relate to possible funding constraints; additional direct and indirect costs related to potential tariffs and exchange rates respectively; and availability of resources (labour and essential materials). To effectively manage and minimise the impact of this risk, the procurement team, will be reviewing with tenderers their views on the impact to works post-Brexit. Contracts will be reviewed on an ongoing basis to outline Brexit specific risks and their implications to NLHPP which will enable the project team to plan to undertake necessary mitigations in a timely manner.

6. SOCIAL VALUE

6.1. There has been continued progress in the delivery of Social Value across the NLHPP programme. Barhale have taken on two apprentices on the Sewer Diversion Main Works contract, both of whom were previously working with Buckingham on the Laydown West Contract. This allows the apprentices to complete their training on the NLHPP. Barhale have also taken on an additional apprentice temporarily from Taylor Woodrow until work on the EcoPark South contract commences on-site. To date, 13 apprenticeships have been created with most apprentices (nine out of the thirteen) being residents of London Borough of (LB) Enfield.

6.2. In addition to the delivery of apprentices, Galldris are delivering a further 10 on-site skills training placements prior to Christmas. Galldris are working with the College of North East London to deliver their training placements, which will involve pre-employability training, the opportunity to take a Construction Skills Certification Scheme (CSCS) Card test as well as on-site experience. The delivery of the 10 training placements will take the total number of training placements delivered by Christmas to 33 placements.

- 6.3. As Taylor Woodrow have started works on the EcoPark South contract, they have been developing a Social Value plan, which was submitted before Christmas. The Social Value plan sets out Taylor Woodrow's commitment to delivering apprenticeships and training placements as well as setting out their strategy to deliver social value against five main themes. These themes include working with local businesses, creating community legacies through delivery of various community initiatives as well as ensuring measures are put in place to recruit local labour. Other themes include creating a healthy and inclusive workforce and ensuring that the environment is respected and protected.
- 6.4. Officers have presented ideas regarding the content of the Schools Programme to the Heads of Science from several schools in LB Enfield including the topics which relate to the National Curriculum as well as topics associated with careers within the construction and waste industries. Officers are working on materials that can be sent to schools that outline what the NLHPP Schools Programme can offer and that allows schools to contact the North London Waste Authority (NLWA) directly to organise sessions that will be delivered by the NLHPP project team.

7. COMMUNICATION

- 7.1. Communication of the availability and benefits of the apprenticeship programme has taken place, to encourage applications. This work will continue, in conjunction with the contractors who will be taking on the apprentices, so that awareness and take up of the opportunities is maximised. A press statement showcasing the collaborative efforts to maintain apprentices on the NLHPP has been published here: <http://northlondonheatandpower.london/news/north-london-waste-authority-leads-the-way-to-secure-longer-term-apprenticeship-for-enfield-residents/>
- 7.2. During December, a key focus in proactive communications was the progress onsite to date leading up to EcoPark South Construction starting in January 2020. The social media campaign #12daysofNLHPP featured the key successes across 2020 in the delivery of the NLHPP. These were published on NLHPPs Twitter, Facebook and LinkedIn.
- 7.3. There has been ongoing communication with those raising issues about the project. Questions continue to be raised through councils' meetings, and briefings with Councillors and Borough officers continue to take place to provide information where relevant. The North London Heat and Power Project website (northlondonheatandpower.london) continues to provide accurate and update to date information on frequently raised issues. This includes a recent update to the Climate Change Committees Carbon Budget reinforcing that the NLHPP is fully in line with the UK's strategy for moving towards Net Zero and that there are no better alternatives for residual waste.

- 7.4. The Health, Safety and Wellbeing Team have worked in collaboration with the communications team to raise the profile of the 'Safety First' initiative across contractors and the project team. Briefings have been given to all involved with the project and a new induction video featuring David Cullen and Paul Popescu highlights NLHPPs vision for zero harm on the project. This has been circulated for use in all site inductions and new team member induction sessions. A poster has also been created to share on site noticeboards and both the video and poster can be viewed on the Safety First page of the NLHPP website here:
<http://northlondonheatandpower.london/safety-first/>

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



Programme Committee Meeting 14th January 2021

Appendix A – Programme Summary





Contents



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-December**
- 2. Schedule and Health, Safety & Wellbeing Summary current at end of November reporting period**



Project Health Check (at mid December)



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	●	→	●	↑	●	→	●	→	●	→
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 November)



Milestone (Critical)	Baseline Date	Forecast Date	Deviation to Baseline Programme (measured in weeks)	Recovery Plan
Complete works to Hawley Road site (Temp long term LEL Transport Yard)	25-Sep-20	09-Nov-20	-6	None required
Complete Laydown Area	11-Nov-20	10-Feb-21	-12	Phased handover and constrained start to EcoPark South Construction
Sewer Diversion Enabling works - Galldris Remove Hoarding from works area for MH A	23-Sep-20	05-Oct-20	-1	The 1 week delay increases risk of further concurrent work between the sewer diversion and EcoPark South contractor in Q3 of 2021, and this is being addressed in the detailed plans being made for that period
Complete Sewer Diversion Enabling Works	25-Feb-21	18-Jan-21	6	
Start Sewer Diversion Main Works on site	23-Sep-20	02-Oct-20	-1	
Start Eco Park South Works on site (with some restrictions)	26-Jan-21	11-Feb-21	-2	Rescheduling EcoPark South Construction to work around the sewer diversion sites
Complete Sewer Diversion work	27-Sep-21	27-Sep-21	0	
Operational Commencement of RRF	26-Oct-22	09-Dec-22	-6	Look at how transition of operations from the temporary bulky waste to the RRF can be done more quickly
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	
ERF - Commissioning - Take Over (O&M engaged in operations)	31-Mar-26	15-May-26	-6	Subject to ERF tender returns
EfW - Laydown Area Re-Instatement	10-Jul-30	23-Aug-30	-6	
Southern Access Road - Works Complete	15-May-31	30-Jun-31	-6	Not applicable at this stage

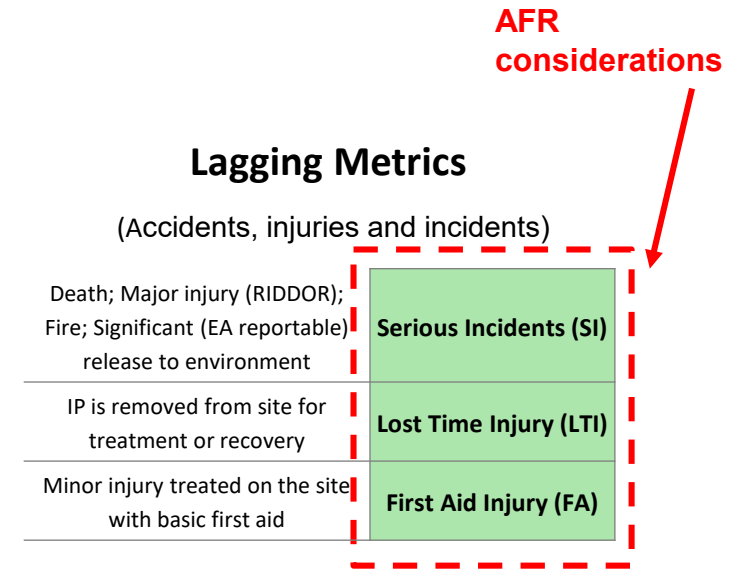


Health, Safety & Wellbeing (HSW) Dashboard

(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.





Health, Safety & Wellbeing (HSW) Dashboard

(Summary of Leading Performance Metrics)



Leading Metrics

	Period November 2020							Period Oct 2020	Total to Date**
	E1A2	E1B	E2B	E2C	E3a	E4A	Total		
Any action or suggestion, idea, behaviour that is 'above and beyond' compliance	3	5	2	9	0	0	19	10	165
Anything volunteered and not resulting from a formal assessment or audit. Positive or negative.	7	10	13	0	2	0	32	37	180
Site visits by Senior Leadership	1	1	1	1	1	0	5	6	27
Weekly site inspection visits by H&S advisors	5	5	6	3	1	0	20	21	148

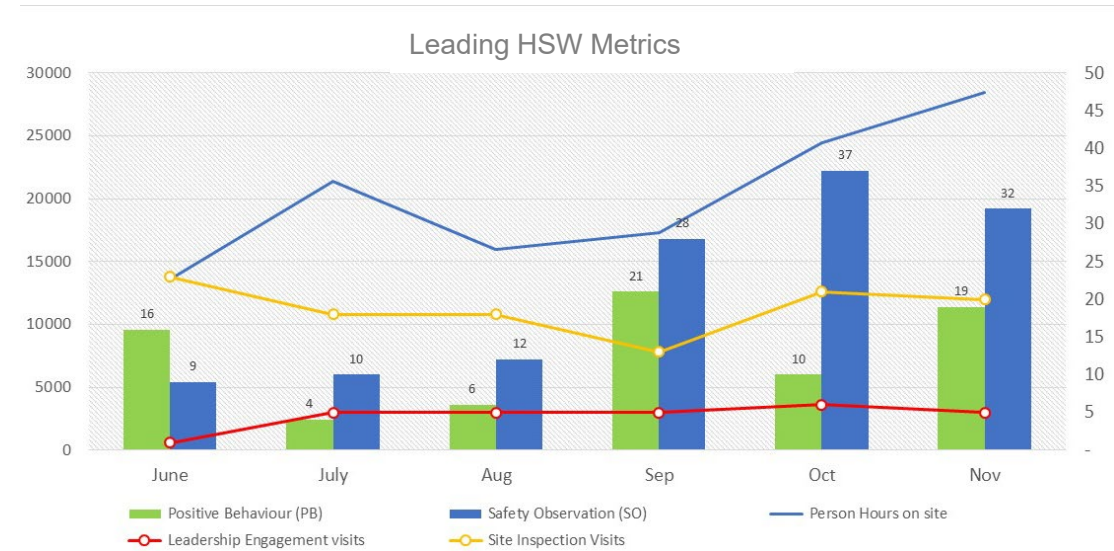


Figure represents the total hours worked on site against leading HSW metrics for each reporting period

	Period Nov 2020	Period Oct 2020	Total to Date*
Health, Safety and Wellbeing Alerts	4	4	38

HSW Snapshot	Date Issued
Safety on site during second COVID 19 Lockdown	05th November 2020
Recognising November	13th November 2020
Keeping a positive mental health during the second lockdown	20th November 2020
How to prevent slips, trips and falls in the workplace	27th November 2020

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



Health, Safety & Wellbeing (HSW) Dashboard

(Summary of Lagging Performance Metrics)



Lagging Metrics	Period November 2020							Period Oct 2020	Total to Date**
	E1A2	E1B	E2B	E2C	E3a	E4A	Total		
Death; Major injury (RIDDOR); Fire; Significant (EA reportable) release to environment	0	0	0	0	0	0	0	0	0
IP is removed from site for treatment or recovery	0	0	0	0	0	0	0	0	1
Minor injury treated on the site with basic first aid	0	0	0	0	0	0	0	0	18
An incident not causing harm, but had the potential to cause injury or ill health	0	0	0	0	0	0	0	3	27
As RIDDOR	0	0	0	0	0	0	0	0	4
Something outside Project control that causes us to take action e.g. nearby fire, flood, site protest, UXB	0	0	0	0	0	0	1	2	39
A set of conditions or circumstances that have the potential to cause injury or ill health, including poor procedures.	11	5	5	5	1	0	27	26	215
Abuse, physical threats or actions short of violence	0	1	0	0	0	0	0	0	2

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

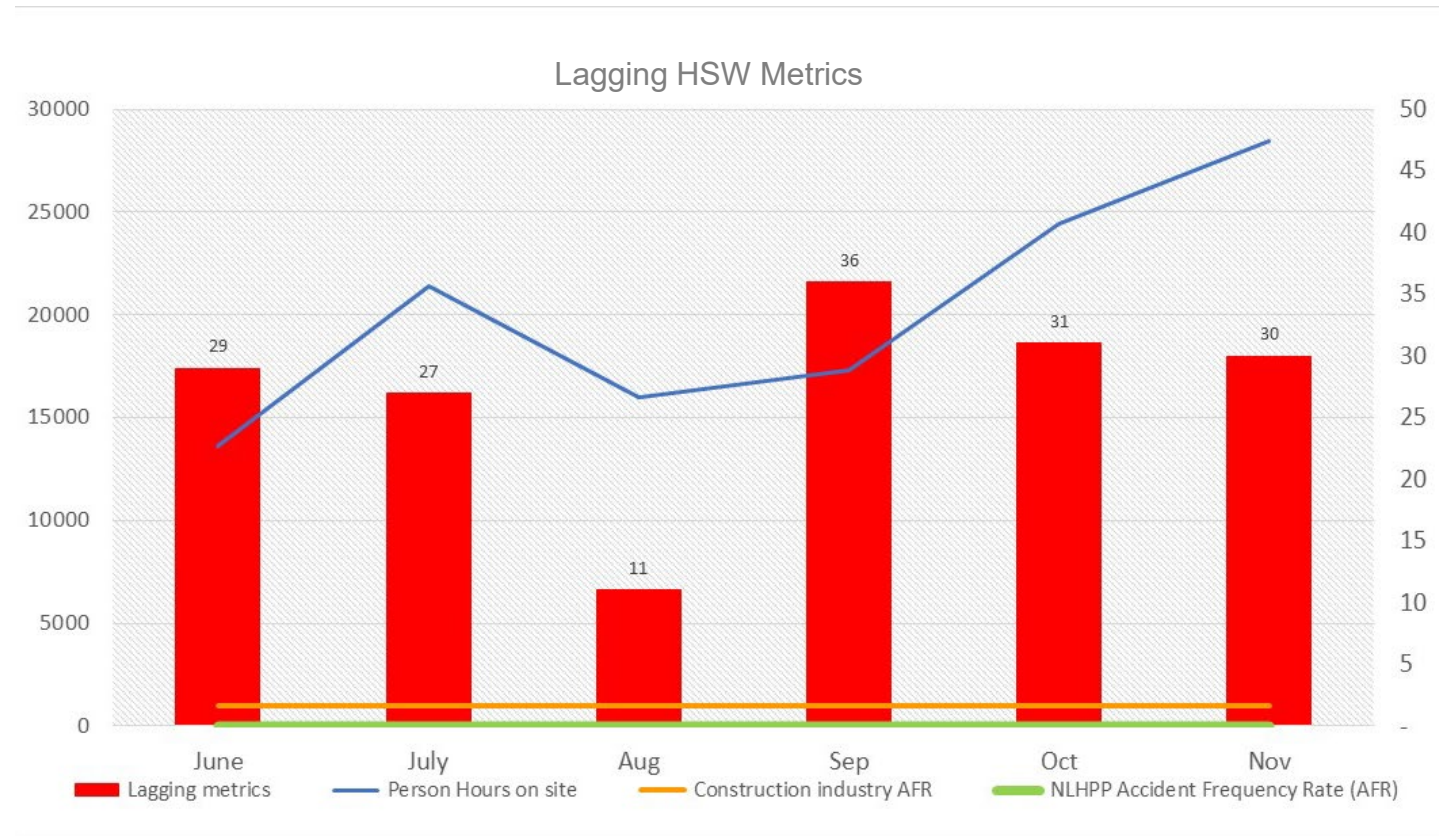


Figure 1: Lagging Metrics

Figure 1 represents the total hours worked on site against lagging HSW metrics for each reporting period and the NLHPP Accident Frequency Rate (AFR) comparing to the Construction industry AFR



Health, Safety & Wellbeing (HSW) Dashboard

(Accident Frequency Rate & COVID-19 Safety Performance)



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

AFR for Reporting Period

NLHPP

0.00

Construction Industry

1.33

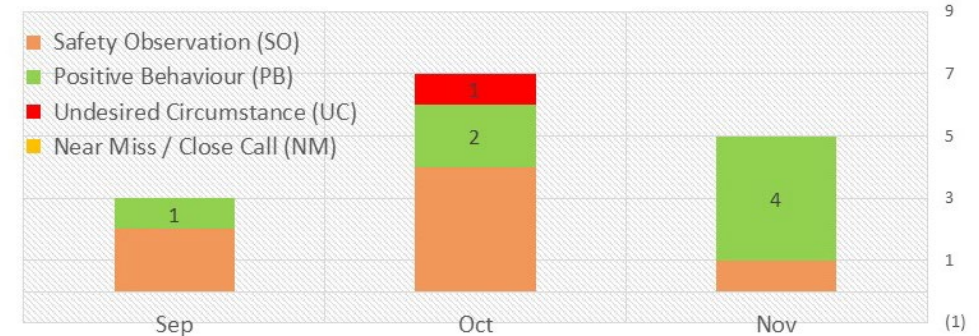
**** The Accident Frequency rate enables comparison of accident rates against hours worked rather than the number of accidents. The calculation is (number of accidents) / (number of hours worked on site) x 100 000. Thus, a project with 1 million hours worked and 3 LTIs would have an AFR of 0.3. The values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

COVID –19 RELATED (according to CLC SOP^{****})

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

	Period November 2020							Period Oct 2020	Total to Date ^{**} *
	E1A2	E1B	E2B	E2C	E3a	E4A	Total		
COVID –19 related	0	1	1	3	0	0	5	7	71

COVID-19 Metrics



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

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



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



Site Inspection Summary November		
Site	Summary Report	Inspection Compliance Scores
E1A2 - Laydown West	Site activities include groundworks, service road tarmac, utilities and fit out of project accommodation. Site is operating safely. Site Management demonstrate 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.	6th November—93.59% 12th November—91.64% 20th November—93.03% 27th November—94.82%
E1B - Northern Access	Site activities include groundworks, utility works, kerb laying and road preparation. Site is operating safely. Site Management demonstrate good approach to health and safety. Dedicated pedestrian walkway segregates Ardra Road from access from compound to site. Good access to excavations. Good welfare arrangements in place. COVID-19 arrangements working well and include full-time cleaner and dedicated marshal. Operatives following RAMS.	6th November—96.36% 12th November—95.73% 20th November—95.71% 27th November—95.67%
E3A—Eco-Park South	Site Investigation and Enabling Works. COVID-19 arrangements working well and include full-time cleaner and dedicated marshal. Operatives following RAMS.	27th November—94.02%
E2B - Sewer Diversion Enabling works	Site activities include groundworks, drainage, ground preparations and investigations.. Site is operating safely. Site Management demonstrate good approach to health and safety. Site segregated from LEL operations. Good adherence to RAMS. Adequate contractor’s welfare arrangements in place. COVID-19 arrangements working well. Operatives following RAMS.	04th September—99.82% 11th September—99.22% 18th September—99.27% 25th September—96.27%
E2C—Sewer Diversion Main Works	Site activities include site set up and boreholes. Site is operating safely. Site Management demonstrate positive approach to health and safety. Site segregated from LEL operations. Adequate contractor’s welfare arrangements in place. COVID-19 arrangements working well. Operatives following RAMS.	6th November—95.08% 12th November—94.92%