

**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:** 29 JULY 2020

**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 Programme Committee is recommended to note the contents of the report.

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

**DATE:** 17 July 2020

## **1. INTRODUCTION AND PURPOSE**

- 1.1. The North London Heat and Power Project (NLHPP) is the programme of works authorised by Development Consent Order (DCO) granted in February 2017 through which the existing energy from waste (EfW) plant at the Edmonton EcoPark will be replaced with a new Energy Recovery Facility (ERF). The programme of works includes provision of a Resource Recovery Facility (RRF) for reception and transfer of waste incorporating a public Reuse and Recycling Centre, and EcoPark House (EPH), a visitor centre which will be used to provide community / education space and back up office space. In preparing for and carrying out the works in the NLHPP programme, the management team is working closely with LondonEnergy Ltd (LEL) the operators of the EcoPark and the current EfW plant.
- 1.2. This status report provides Members with an update on progress of the NLHPP. This report reflects the status of the programme on the 29 May 2020, the end of the most recent reporting period. Where significant updates have occurred to this status since that date, an update has been included. The report structure provides a narrative in the main body with a dashboard.

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

- 2.1. The NLHPP programme is on track to deliver to its cost and programme objectives.
- 2.2. The reporting period has seen some key achievements as the project addresses the forward programme despite the adverse impact of COVID-19 on normal working practices.
- 2.3. Of special note are the following achievements.
  - 2.3.1 The notification of tender for the Energy Recovery Facility (ERF) works has been successfully published by the Official Journal of the European Union (OJEU), starting the formal procurement process.
  - 2.3.2 The conclusion of the tender evaluation for the EcoPark South Construction contract and the identification of a preferred tenderer.
  - 2.3.3 The full return to work of the site preparation sites, employing high standards of COVID-19 safe working practices.
  - 2.3.4 Successful rescheduling of major sections of the site preparation works in positive collaboration with contractors to recover time lost due to COVID-19.
  - 2.3.5 A third and final Market Information Day for the ERF carried out “virtually”. The well-attended event provided further key information to the potential supply chain about the project requirements and the Authority’s objectives.
- 2.4. The readiness to issue the OJEU notice involved the meticulous completion, review and co-ordination of over 100 tender documents achieved through online meetings involving, at various stages, over 40 team members. The documentation features innovative and “best in class” approaches to tendering in many areas such as whole life costing and evaluation of social value proposals.

- 2.5. Work is progressing well in close co-ordination with LondonEnergy Ltd (LEL) to develop the major programme risk mitigation initiatives in the northern area (the Temporary Bulky Waste Facility) and the southern area (the revised sewer diversion design). A major element of securing these initiatives involves close examination of safe operational and construction traffic movements.
- 2.6. The project continues to prioritise health, safety, and wellbeing, in line with the vision to achieve zero harm to the workforce and stakeholders. Ahead of the increased construction activity at the start of 2021, the project team has enhanced its health and safety management resource and capability, bringing in Safer Sphere – a construction safety management organisation with extensive experience on major infrastructure projects in the UK, to work within the integrated management team and report directly to the Programme Director.
- 2.7. A key feature of the project team's work in this period has been in connection with responses to an increased level of communications from community representatives prompted by the start of formal procurement for the ERF. This has provided an opportunity to explain to the Authority's stakeholders that the project provides the safest, most sustainable and cost-effective solution for managing north London's waste in the future and is a vital part in our efforts to tackle the Climate Emergency and boost north London's recycling rates.

### **Status Summary**

- 2.8. The programme has progressed well in the last period, particularly given the volume of management activities being undertaken throughout June. Key opportunities, notably around the sewer enabling and main works interface have developed positively, and this is leading to higher confidence in the programme's ability to deliver to schedule.
- 2.9. A successful Authority meeting in June, with multiple procurement delegations approved, has enabled the next steps to be progressed in the EcoPark South (EPS) and ERF projects as well as supporting the digital strategy's next steps. The EPS project team have completed their tender evaluation successfully within a tight timeframe and are now preparing to take a recommendation paper to Members to allow contract award. The ERF tender development has also progressed well, albeit the publication date was delayed slightly to allow for further document assurance and review. This is now planned for issue in mid-July.
- 2.10. The major focus around the schedule baseline continues. The challenges faced in recent months associated with COVID-19 have been responded to, with construction works restarted on all NLHPP sites, and safe working practices in operation. Positive progress has been made with mitigating the impact of site suspension on the sewer enabling works/diversion interface, and an opportunity to re-sequence construction activities looks likely to recover a significant proportion of the delay.
- 2.11. A working scenario that aligns the northern area clearance and ERF delivery timeframes has been prepared for integration into the baseline in July, subject to the feasibility study confirming an ability to provide a temporary operational facility on the site.

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

- 2.12. The following items are notable successes in the previous period:
- 2.12.1 Construction remobilisation— All construction activities have recommenced in line with the remobilisation plans developed collaboratively between NLHPP and the contractors. New working practices are in place (and being monitored) to manage the risks associated with COVID-19 transmission, and to maintain the safety of all workers and visitors on site. A key site constraint has been removed in the period when Cadent completed the purging and decommissioning of the existing gas main on the site.
  - 2.12.2 EcoPark South procurement—EcoPark South tender has progressed through the final stages on time, with the tender evaluations being successfully completed in June in line with the schedule. The completion of the tender outcome report and subsequent paper to Members to request delegation to award the contract is on the Programme Committee's agenda.
  - 2.12.3 Site-wide Intrusive Surveys—This framework has now been awarded to Galldris following completion of the procurement process. A kick-off meeting has been held and the project team are working with the contractor to agree the optimum schedule of task orders, to enable survey output data to be available to other projects when needed.
  - 2.12.4 ERF procurement - Delegated authority was given on 25 June 2020 by the Authority to commence procurement of the ERF contractor—a major milestone on the largest of the NLHPP projects. This allows the procurement timeline to proceed as planned. The documentation is being reviewed and approved and is likely to be published in mid-July.
  - 2.12.5 Construction works – On site, Galldris have made good progress since returning to site, working safely, with very little impact of COVID-19 on efficiency noted to date. As a consequence, a number of risks have been closed on the Northern Access and Transport Yard projects, improving the risk profile of these projects. The UKPN works which bring the electrical connection from Tottenham substation to the north gate of the EcoPark has been completed.

## **Key Focus of Activity**

- 2.13. The following aspects are areas that will receive considerable focus in the coming period:
- 2.13.1 Delivery of the Northern Area Clearance—the ERF footprint has to be cleared in advance of the ERF contractor's site access. A strategy has been proposed to remove this from the critical path, which requires a temporary facility to be constructed. A feasibility study, led by the project manager, will complete in the next period to ascertain that the facility can be delivered.

- 2.13.2 Uncertainty associated with the Energetik interface—a technical opportunity is being explored that could unlock the southern end of the EcoPark and allow coordinated activities to proceed by NLHPP and Energetik. This is being examined by the Technical Assurance team, in conjunction with the Sewer Diversion contractor, Barhale, LEL and Energetik.
- 2.13.3 The ERF delivery schedule—considerable work has been carried out in developing a feasible procurement and construction schedule, since the last baseline update. The project manager will progress this through change control this period to ensure a clear target baseline is in place and understood by all.
- 2.13.4 ERF tender preparation— The coming period will be extremely busy with the final drafting of the tender documents, with contributions required from across the functions. The “page-turn” reviews of the final documents will take place ahead of the mid-July publication date.

### **3. PROJECT SUMMARY**

- 3.1. The NLHPP programme has been structured as a series of individual projects. The current status of each is presented below.

| <b>Project</b>  | <b>Progress in Period (May)</b>           | <b>Activities Next Period (June)</b>   | <b>Key focus</b>   | <b>Next Milestones</b>                       |
|---|---|--|--|--|
| <b>E1a2 (Laydown Area West and Eastern Access)</b>                  | Remobilisation plans                      | Continue construction of: <ul style="list-style-type: none"> <li>• Laydown area</li> <li>• Eastern Access</li> </ul>         | Schedule recovery; Eastern Access ground strengthening measures  | Complete construction                        |
| <b>E1b (Northern Access)</b>  | Remobilisation plans                      | Continue construction of: <ul style="list-style-type: none"> <li>• River bank piling</li> <li>• Road construction</li> </ul> | Schedule recovery  | Complete construction                        |
| <b>E2a (Transport Yard relocation)</b>                              | Remobilisation plans                      | Continue construction of: <ul style="list-style-type: none"> <li>• Hard standings</li> </ul>                                 | Schedule recovery  | Complete construction                        |
| <b>E2b (Sewer Diversion Enabling Works)</b>                         | Remobilisation plans                      | Continue construction; Activity sequencing and rescheduling.   | Reschedule to enable sewer diversion to start on time            | Complete works to enable Shaft A to start    |
| <b>E2c (Sewer Diversion Main Works)</b>                             | Detailed design                           | Detailed design  | Planning how to overlap work with enabling works                 | Start on site                                |
| <b>E3a (EcoPark South)</b>  | Tender receipt                            | Tender evaluation and assessment.  | Revision of Execution Plan for post contract award phase.        | Award contract                               |
| <b>E3b (Northern Area Clearance)</b>                                | Feasibility of temporary waste management | Members paper to procure demolition contractor.<br>Conclude feasibility study  | Identify best way to arrange temporary waste management measures | Start initial demolition package procurement |
| <b>E4 (Utility Corridor and Main Distribution Network Operator)</b> | Procurement of Cadent detailed design;    | Start gas main detailed design;<br>Start intrusive surveys<br>UKPN connection works completion                               | Complete plans for procurement of all utility works civil works  | Complete gas main design                     |

| <b>Project</b>   | <b>Progress in Period (May)</b>      | <b>Activities Next Period (June)</b> | <b>Key focus</b>  | <b>Next Milestones</b>       |
|--|--------------------------------------|--------------------------------------|---|------------------------------|
| <b>(DNO) connections)</b>  | Award of Site Wide Intrusive Surveys |                                      |   |                              |
| <b>E7 Energy Recovery Facility (ERF)</b>   | Preparation for procurement          | Review and sign off tender documents | Members' paper to allow delegation to commence procurement. | Issue OJEU notice            |
| <b>E8 (EfW demolition and decommissioning) and E9 (Southern Access widening)</b> | None                                 | None                                 | None  | Start project execution plan |

#### 4. SCHEDULE SUMMARY

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

| Milestone   | Baseline Date | Forecast Date | Deviation to Baseline | Recovery Action  |
|---|---------------|---------------|-----------------------|--|
| Complete works to Hawley Road Site (Relocated LEL Transport Yard) | 06-Jul-20     | 05-Oct-20     | -13 weeks             | An opportunity has been identified and developed to revise the sewer enabling works such that the sewer diversion contractor can gain access to site on time. This will recover between 12 and 18 weeks of the schedule.   |
| Complete Laydown Area   | 11-Nov-20     | 20-Jan-21     | -8 weeks              |  |
| Start Sewer Diversion Enabling Works to Shaft A Area on site      | 17-Jun-20     | 30-Oct-20     | -19 weeks             |  |
| Complete Sewer Diversion Enabling Works                           | 23-Oct-20     | 11-Feb-21     | -14 weeks             |  |
| Start Sewer Diversion Main Works on site                          | 23-Sep-20     | 11-Feb-21     | -19 weeks             | The above development will provide a consequential benefit for the subsequent projects by reducing the critical path impact. The EcoPark South team are additionally reviewing mitigations to manage impacts of the laydown area potentially being available later than planned. |
| Start EcoPark South Works on site (with some restrictions)        | 25-Jan-21     | 25-Jan-21     | 0 weeks               |  |
| Complete Sewer Diversion Work                                     | 27-Sep-21     | 17-Feb-22     | -18 weeks             |  |
| Operational Commencement of RRF                                   | 25-Oct-22     | 03-May-23     | -25 weeks             |  |
| Northern Area Clearance - Remediation Complete                    | 31-May-23     | 09-Oct-23     | -26 weeks             | The schedule does not currently reflect the developing scenarios for the northern area clearance and the ERF delivery strategy which will be incorporated in the next period, following review and agreement by the leadership team.   |
| ERF – Commissioning – Take over (O&M engaged in operations)       | 19-Dec-25     | 17-Jul-26     | -27 weeks             |  |
| EfW – Laydown Area Re-Instatement                                 | 19-Jun-30     | 18-Mar-31     | -37 weeks             |  |



| <b>Milestone</b>                      | <b>Baseline Date</b> | <b>Forecast Date</b> | <b>Deviation to Baseline</b> | <b>Recovery Action</b> |
|---------------------------------------|----------------------|----------------------|------------------------------|------------------------|
| Southern Access Road – Works Complete | 14-May-31            | 21-Jan-32            | -34 weeks                    |                        |

## 5. RISK SUMMARY

- 5.1. At programme level, further work has taken place to develop previously identified communications and organisational risks to ensure robust understanding and ownership of these.
- 5.2. Within the projects, four risks were opened. These include three new risks on EcoPark South (EPSC) relating to potential impacts from Covid-19 and invasive species around the temporary weighbridge site zone. Fourteen risks were closed during the month, many of which relate to external interfaces of our construction works with statutory bodies (including UKPN and the Environment Agency) and reflect the completion of approvals and pre-commencement conditions, following good progress by the project teams and their contractors.
- 5.3. The following risks continue to be the key “proximity” risks, i.e. they will either occur or require significant mitigating actions in the next 6 months. The table below provides a detailed update on actions against each “proximity” risk.

|  |  |
|--|--|
| <p><b>Risk description:</b><br/>Uncertain schedule and/or financial implications to NLHPP following recommencement of site-works. For instance, productivity impacts associated with new working arrangements.</p>   | <p><b>Mitigation update:</b><br/>The team are adopting more agile scenario modelling methods such as 4D modelling to enable quick evaluation of change such as site-wide impacts / traffic movements / schedule interfaces and drive decision making. In addition, initiatives to evaluate how the interface between RRF and ERF can be removed to mitigate any schedule risk.</p> |
| <p><b>Risk description:</b><br/>Interim/temporary conditions (e.g. road diversions, temporary weighbridges etc) required to maintain LEL operations during EcoPark South Construction may not be in place pre-contract start. This will result in a delay to the Contractor.</p> | <p><b>Mitigation update:</b><br/>Design and scheduling of temporary works is underway to allow their procurement and construction in alignment with EcoPark South construction activities.</p>   |
| <p><b>Risk description:</b><br/>Overlap between NLHPP works and Energetik may give rise to new interfaces / site conflicts during construction which may result in disruption to NLHPP works.</p>  | <p><b>Mitigation update:</b><br/>Known interfaces are being actively managed with significant involvement from the Sewer Main Works Contractor to progress an integrated technical solution that all parties can accept is underway.</p>   |

## **6. HEALTH, SAFETY AND WELLBEING (HS&W)**

- 6.1. COVID-19 plans, procedures, Risk Assessment and Method Statements (RAMS) and checks have been the key activities this period in preparation for the resumption of works on site. The Health, Safety and Wellbeing team has worked closely with the project managers and contractors to ensure that everyone is as fully prepared as is possible for a return to work in an environment still dominated by concerns about COVID-19. This close liaison will continue but could be especially intense during the first few weeks after construction has resumed.
- 6.2. Both the delivery team and the contractors have been monitoring the latest Construction Leadership Council (CLC) Site Operating Procedures (SOPs), now in version 4, (Version 5 issued on 1<sup>st</sup> July) to ensure that both are fully aware of and adopting latest best practice. In addition, however, the health, safety and wellbeing team has also prepared visual and written guidance to show what will be expected of the workforce. The contractors have done something similar and their proposals also include the use of COVID-19 Marshals who will be charged with monitoring compliance. It has been noted that some of the workforce will be travelling long distances and will need local temporary accommodation; this and 'safe travel plans' have been included in the COVID-19 advice and check-lists.
- 6.3. Championing research into certain aspects of COVID-19 management is scheduled, for example:
  - 6.3.1 Monitoring the use of mobile phones and proximity sensors to aid contact tracing in the event that anyone develops COVID-19 symptoms.
  - 6.3.2 The value and implementation of personnel temperature checks, use of face masks, etc.
  - 6.3.3 Developing a PowerPoint presentation for the project managers and workforce to illustrate how to manage a variety of COVID-19 scenarios that might be faced during day to day works. ('What Good Looks Like').
  - 6.3.4 Creating and distributing a 'COVID-19 tick box check-list' for both the HS&W advisors and the project managers to use.
  - 6.3.5 Arranging with the communications team for the CLC SOPs and other COVID-19 precautions to figure heavily in the weekly Health, Safety and Wellbeing Snapshots.
  - 6.3.6 Flagging up the potential to be presented with counterfeit goods, especially sanitising hand gels.
- 6.4. There are no health, safety or wellbeing issues to report this month though there are concerns about the number of attempts to break into the site and suspected plans for or attempts of theft of equipment. The contractors' and LEL's security staff are operating to the highest standard and being very effective, with actions being taken to reduce this risk.
- 6.5. The Health, Safety and Wellbeing Management Plan and the Assurance and Best Practice Reference Documents have been presented to the NLHPP Senior

Leadership team and feedback is being incorporated into these. Preliminary results of the recently completed HS&W survey have also been presented to the leadership team and its recommendations will be used to guide the next stage of team engagement and planning of development initiatives.

## **7. SOCIAL VALUE**

- 7.1. Activities have been delayed as a result of COVID-19 restrictions and health and safety requirements. The current position on the contracts is set out below.
- 7.2. **Northern Access Works:** the first apprentice who started a business administration apprenticeship earlier this year was put on furlough due to office closures resulting from COVID-19. The apprentice continued to progress with her college course during this time with the support from Capital City College Training (CCCT), and she started work again on 1 July. Galldris are progressing with the appointment of a second apprentice and will undertake second round interviews in July. If a suitable candidate is found an offer of employment could be made by end of July.
- 7.3. Galldris have been unable to provide training placements to the office or on site as a result of restrictions arising from COVID-19. Galldris are reorganising office working arrangements to enable reopening, and will review, with officers and CCCT (training provider) how to put these training placements.
- 7.4. **Sewer Diversion Works:** Barhale are procuring two apprenticeships through Evolve (the Construction Industry Training Board's Shared Apprentice Scheme). They would like to recruit two civil engineering apprentices if possible. The apprentices will start when works start on site, which is anticipated to be September 2020.
- 7.5. **Laydown Area West:** Buckingham are planning to deliver three apprenticeships using Evolve. Interviews have been held for two engineering technician apprenticeships. Decisions will be confirmed in early July with apprentices potentially starting on site later in July. For their third apprentice, Buckingham are sourcing candidates for a business administration role. The intention is to conduct interviews in July, with the apprenticeship starting in July or August.
- 7.6. Buckingham will work with CCCT to deliver training placements. They will deliver a 'Pre-Employment to Construction' course at the College of North East London (CONEL). The training placement will be marketed via CCCT who are well connected with the local community. An initial start date of mid-August has been proposed. It is currently difficult to provide the site based aspects of the placements, and this will be kept under review.
- 7.7. As schools are also beginning to open up and preparing for students to return to the classroom, contact will be made with London Borough of (LB) Enfield and the pilot schools who showed an initial interest in the school's programme to develop the content of the programme further.

## **8. COMMUNICATIONS**

- 8.1. The communications activity on the Project is reported in a separate report elsewhere on this agenda.

- 8.2. In the period since the last report, press notices have been issued to highlight the work on site through the remobilisation video, and the decision by Members at the last Authority meeting to authorise the start of the procurement of ERF works.
- 8.3. Social media activity has continued to highlight the benefits of the project, and to show that it supports the Authority's aims of increasing policy and reducing waste in the area.
- 8.4. As part of the series of regular updates to households and businesses in the area, a community newsletter is planned for distribution to 28,000 homes and businesses to provide an update on the project, including the works on site, and the start of the procurement for the ERF works.

## **9. GOVERNANCE**

- 9.1. The NLHPP engagement with the boroughs continues through the meetings with Directors of Environment, Finance and the Partnership Board, the forum for principal engagement between borough directors and the NLHPP progress.

## **10. EQUALITIES IMPLICATIONS**

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

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

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

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

- 12.1. The Finance Adviser has been consulted during the preparation of this report and comments have been incorporated.

### **Contact officer:**

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## **APPENDIX A: DASHBOARD REPORT**



# Programme Committee 29 July 2020

## Appendix A NLHPP – Dashboard Report





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**Please note that this dashboard report and project reports contained in Appendix A of the Programme Update (Part 2) reflect the most recent period-end of 29/05/2020**





# Programme Summary (end of May reporting period)



| Completed within previous period:  | Look ahead for next period:   |
|--|---|
| <ul style="list-style-type: none"><li>• <b>Construction remobilisation</b> — All construction activities have recommenced in line with the remobilisation plans developed collaboratively between NLHPP and the contractors.</li><li>• <b>EcoPark South procurement</b> — EcoPark South tender has progressed through the negotiation phase and Invitation to Submit Final Tenders (ISFT) were issued on time.</li><li>• <b>Site-wide Intrusive Surveys</b> — This framework has now been awarded to Galdris following completion of the procurement process.</li><li>• <b>ERF discharge requirements</b> —LB Enfield completed their determination of the discharge requirement application for the ERF.</li><li>• <b>ERF third party assurance</b>—A formal, independent assurance review, delivered by Fichtner, was completed.</li><li>• <b>Laydown East contract close-out</b>— A commercial resolution has been agreed and the contract will now move into the defects period.</li></ul> | <ul style="list-style-type: none"><li>• <b>ERF tender preparation</b> — The coming period will be extremely busy with the final drafting of the tender documents, with contributions required from across the functions.</li><li>• <b>EPS Tender</b> – The evaluation will be completed within June following the return of tenders.</li></ul>  |
| Not achieved in previous period:   | Issues for resolution:  |
| <ul style="list-style-type: none"><li>• <b>Construction activities</b> – As the suspension has continued, the on site activities have not been completed and will follow upon full remobilisation.</li></ul>   | <ul style="list-style-type: none"><li>• <b>Schedule confidence</b> – impacts of COVID-19 are still to be fully understood and key opportunities around interfaces are being examined.</li><li>• <b>Northern Area Clearance</b> – the feasibility study has highlighted the challenge for a temporary facility of balancing the available space with operational needs. The NLHPP and LEL teams are working closely to find a workable solution.</li></ul> |



# Project Health Check



| Project  | Cost      |              | Schedule  |              | Risk      |              | H&S       |              | Overall   |              |
|--|-----------|--------------|-----------|--------------|-----------|--------------|-----------|--------------|-----------|--------------|
|  | 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       |              | n/a       |              |
| Laydown Area (West) & Eastern Access - E1a2    | ●         | →            | ●         | ↓            | ●         | →            | ●         | →            | ●         |              |
| Northern Access - E1b                          | ●         | →            | ●         | →            | ●         | →            | ●         | →            | ●         |              |
| Transport Yard - E2a                           | ●         | →            | ●         | ↓            | ●         | →            | ●         | →            | ●         |              |
| Sewer Diversion (Enabling Works) - E2b         | ●         | →            | ●         | ↓            | ●         | →            | ●         | →            | ●         |              |
| Sewer Diversion (Main Works) - E2c             | ●         | →            | ●         | ↓            | ●         | →            | ●         | →            | ●         |              |
| EcoPark South – E3a                            | ●         | →            | ●         | ↓            | ●         | →            | ●         | →            | ●         |              |
| Northern Area Clearance – E3b                  | ●         | →            | ●         | →            | ●         | ↑            | ●         | →            | ●         |              |
| Utility Corridor and Main DNO connections - E4 | ●         | →            | ●         | →            | ●         | →            | ●         | →            | ●         |              |
| Energy Recovery Facility (ERF) - E7            | ●         | →            | ●         | →            | ●         | →            | ●         | →            | ●         |              |
| EfW demolition and decommissioning - E8        | ●         | →            | ●         | →            | ●         | →            | ●         | →            | ●         |              |
| Southern Access Widening - E9                  | ●         | →            | ●         | →            | ●         | →            | ●         | →            | ●         |              |

See next two slides for key to RAG status



# Project Health Check – Key (1 of 2)



| Key | Cost  | Schedule   | Risk   | Overall   |
|-----|---|--|--|---|
| ●   | Overall Project Cost FAC*: <ul style="list-style-type: none"> <li>Is below the Overall Project Cost Baseline by 10% or less.</li> </ul>   | The project completion forecasted date (gate 5) is greater than 20 days prior to the baseline date.          | Risks generally being closed, mitigation actions and related activities being addressed or progressed. “profile” of risk going down.             | A project is assessed as green if its performance does not threaten the NLHPP’s overall objective of bringing the new ERF into service at the end of 2025 or cause the NLHPP baseline budget of £1.13bn to be exceeded.   |
| ●   | Overall Project Cost FAC*: <ul style="list-style-type: none"> <li>Exceeds the overall Project Cost Baseline by less than 15%, or</li> <li>Is below the Overall Project Cost Baseline by 10–20%.</li> </ul>      | The project completion forecasted date (gate 5) is equal to or less than 20 days prior to the baseline date. | A mixed picture of new risks opening while others are closing. Some actions resolving, others stalled or delayed. Risk Profile remaining flat.   | A project is assessed as amber if its current plans threaten the overall objective of bringing the new ERF into service at the end of 2025 or cause the NLHPP baseline budget of £1.13bn to be exceeded, but that mitigation plans are in place.                          |
| ●   | Overall Project Cost FAC*: <ul style="list-style-type: none"> <li>Exceeds the overall Project Cost Baseline by more than 15%, or</li> <li>Is below the Overall Project Cost Baseline by 20% or more.</li> </ul> | The project completion forecasted date (gate 5) is greater than the baseline date.                           | Increasing risk to the project – more risks opening than closed, mitigations and associated activities not progressing. Risk profile increasing. | A project is assessed as red if its current plans threaten the overall objective of bringing the new ERF into service at the end of 2025 or cause the NLHPP baseline budget of £1.13bn to be exceeded, but mitigation plans are either not in place or not yet finalised. |

| 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    |

Projects with an overall Red status have been included in the deep-dive section of the Part 2 report.



# Project Health Check – Key (2 of 2)



| Key | Health and Safety   |  |  |  |
|-----|---|--|--|--|
|     | Leading Indicators  | Lagging Indicators   | COVID-19 Performance   | Overall  |
| ●   | Senior leadership engagement, Positive Behaviours and Safety Observations noted and recorded. | No recorded incidents, accidents or near misses. Any issues are outside the Project’s control. | Complete compliance with CLC SOPs and additional NLHPP suggestions. Visible promotion of excellent practice. | Project will receive a Green RAG if all three indicators are green.            |
| ●   | Only normal scheduled HS&W advisor site visits and weekly HS&W Snapshots published.           | Any recorded accident, lost time or otherwise, or occupational disease (including CV-19 )      | Occasional failures to comply with CLC SOPs but are promptly remedied.                                       | Project will receive an overall Amber RAG if one or more indicators are Amber. |
| ●   | None recorded   | Any RIDDOR incident.   | Consistent failures to comply with CLC Site Operating Procedures version 4                                   | Project will receive a Red RAG if two or more indicators are Red               |

| Key | Context  |
|-----|--|
| →   | No material change in status between the current and previous period |
| ↓   | Adverse change in status between the current and previous period     |
| ↑   | Positive change in status between the current and previous period    |



# Schedule Dashboard



| Milestone (Critical)   | Baseline Date | Forecast Date | Deviation to Baseline | Interface  | Recovery Plan  |
|--|---------------|---------------|-----------------------|--|--|
| Complete works to Hawley Road site (Temp long term LEL Transport Yard) | 06-Jul-20     | 05-Oct-20     | -13                   | Enables start of enabling works to Shaft A   | An opportunity has been identified and developed to revise the sewer enabling works such that the sewer diversion contractor can gain access to site on time. This will recover between 12 and 18 weeks of the schedule.   |
| Complete Laydown Area  | 11-Nov-20     | 20-Jan-21     | -8                    | Enables new Eastern Access road to open to light traffic.                              |  |
| Start Sewer Diversion Enabling Works to Shaft A Area on site           | 17-Jun-20     | 30-Oct-20     | -19                   | Requires relocation of Transport Yard to Hawley Road                                   |  |
| Complete Sewer Diversion Enabling Works                                | 23-Oct-20     | 11-Feb-21     | -15                   | Enables access to the Sewer Diversion Main Works contractor.                           |  |
| Start Sewer Diversion Main Works on site                               | 23-Sep-20     | 11-Feb-21     | -19                   | Requires enabling works to Shaft A area to be completed                                | The above development will provide a consequential benefit for the subsequent projects by reducing the critical path impact. The EcoPark South team are additionally reviewing mitigations to manage impacts of the laydown area potentially being available later than planned. |
| Start EcoPark South Works on site (with some restrictions)             | 25-Jan-21     | 25-Jan-21     | 0                     | Access to sewer shaft construction area not available until December 2021              |  |
| Complete Sewer Diversion work  | 27-Sep-21     | 17-Feb-22     | -19                   | Enables access to full EcoPark South work site   |  |
| Operational Commencement of RRF  | 25-Oct-22     | 03-May-23     | -25                   | Enables transition of existing operations and commencement of Northern Area Clearance. | The schedule does not currently reflect the developing scenarios for the northern area clearance and the ERF delivery strategy which will be incorporated in the next period, following review and agreement by the leadership team.   |
| Northern Area Clearance - Remediation Complete                         | 31-Mar-23     | 09-Oct-23     | -26                   | Enables the commencement of ERF construction works                                     |  |
| ERF – Commissioning – Take over (O&M engaged in operations)            | 19-Dec-25     | 17-Jul-26     | -27                   | Requires construction to be complete.  |  |
| EFW – Laydown Area Re-Instatement                                      | 19-Jun-30     | 18-Mar-31     | -37                   | Enables new Eastern Access road to open to light traffic.                              |  |
| Southern Access Road – Works Complete                                  | 14-May-31     | 21-Jan-32     | -36                   | Requires relocation of Transport Yard to Hawley Road                                   |  |

Note – COVID-19 has had a clear and immediate impact on the NLHPP schedule with works temporarily suspended, and the knock-on deviation from baseline for the construction works. Less clear is the longer-term impacts of working in a socially distanced environment, and broader economic slowdowns - with potential effects on resource and material availability. Over the next couple of months, this will be assessed and new assumptions developed for the NLHPP programme, at the same time as incorporating activities highlighted in section 2.9



# Risk Dashboard



## Risk Register Summary Statistics

| Summary Statistics     | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 |
|------------------------|--------|--------|--------|--------|--------|--------|
| In-period active risks | 368    | 362    | 365    | 362    | 375    | 365    |
| Risks raised in period | 24     | 4      | 6      | 0      | 15     | 4      |
| Risks closed in-period | 10     | 10     | 3      | 3      | 2      | 14     |

## Risk count by RAG (score) categorisation

|             |    | Risk distribution (Probability x Impact) |    |    |    |    |
|-------------|----|--|----|----|----|----|
| Probability | VH | 5  | 4  | 3  | 2  | 1  |
|             | H  | 1  | 14 | 19 | 16 | 2  |
|             | M  | 16                                       | 23 | 29 | 25 | 17 |
|             | L  | 22                                       | 35 | 28 | 18 | 16 |
|             | VL | 13                                       | 17 | 11 | 6  | 1  |
|             |    | VL                                       | L  | M  | H  | VH |
|             |    | Impact                                   |    |    |    |    |

## Key risks by impact

| Project                           | Risk Event   | Mitigation Control Plan   |
|-----------------------------------|--|---|
| Programme Wide                    | Uncertain schedule and/or financial implications to NLHPP following recommencement of site-works | 1) Develop agile scenario modelling by using 4D BIM to quickly understand site-wide impacts / traffic movements and improve decision making<br>2) Progress strategy to de-link ERF from RRF and mitigate any schedule impacts |
| E3b Northern Area Clearance (NAC) | If the EcoPark South works are delayed it will have a direct impact on NAC programme and ERF.    | 1) Finalise development of agreed NAC programme and evaluate alternative operational strategies to determine the feasibility of earlier access to the Northern Area.  |
| E7 ERF                            | Cost and time extent associated geotechnical (pile removal) works is still emerging              | 1) Undertake non-intrusive and intrusive survey works in Northern Area<br>2) Tender documentation to include factual information, with information updated progressively around respective site zones                         |

## Key risks by proximity (next 12 months)

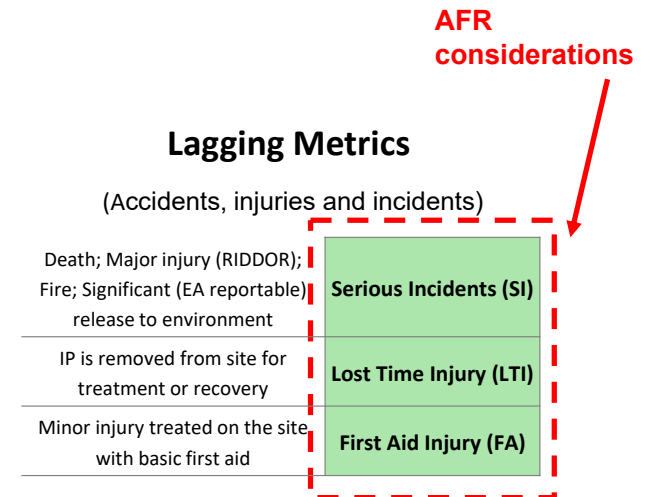
| Project                          | Risk Event  | Mitigation Control Plan   |
|----------------------------------|---|---|
| Programme Wide                   | Energetik may disrupt NLHPP works due to misalignments and conflicts in construction programme.               | 1) Close coordination to identify integrated technical solution that all parties can accept (evaluate new proposal)<br>2) Progress proposed technical solution on SDMW  |
| E3a (EcoPark South Construction) | Enabling works to support operations during EPSC may not be completed in time for construction start on site. | 1) Agree programme to design, procure and construct EPSC enabling works pre-contract start on site.   |
| E3a (EcoPark South Construction) | Scope for southern site utilities is immature at current and may change                                       | 1) Trial pits to be completed in order to validate utility model and communicate new information to Contractor.<br>2) Acceptable approach to manage risk to be agreed and detailed through Negotiation phase of Procurement |



# Health, Safety & Wellbeing Dashboard (1 of 5)



| Terminology                          | Definition   | Further Explanation   |
|--------------------------------------|--|---|
| <b>Leading Metrics</b>               | Actions that help to prevent accidents, injuries and incidents   | The Health & Safety Executive's (HSE) and others' research has shown that increasing awareness and noting of both good and bad health, safety and wellbeing issues by <u>any and all of</u> the workforce (leading indicators) has shown a significant effect on the reduction in lost time accidents and other untoward events (lagging indicators). |
| <b>Lagging Metrics</b>               | Accidents, injuries and incidents  |   |
| <b>Accident Frequency Rate (AFR)</b> | $\left[ \frac{\text{Number of injuries in the period}}{\text{Total hours worked during the period}} \right] \times 1,000,000$ <p>i.e. the number of injuries per million hours worked.</p> | The AFR takes into account the first 3 lagging metrics: Serious Incident (SI), Lost Time Injury (LTI) and First Aid Injury (FA), as highlighted in an exert from the Lagging Metrics table.   |





# Health, Safety & Wellbeing Dashboard (2 of 5)



| Leading Metrics   | Period May 2020 |     |      |     |       | Period April 2020 | Total to Date* |
|---|-----------------|-----|------|-----|-------|-------------------|----------------|
|   | E1A2            | E1B | E2 A | E2B | Total |                   |                |
| Any action or suggestion, idea, behaviour that is 'above and beyond' compliance                 | 2               | 2   | 1    | 0   | 5     | 6                 | 89             |
| Anything volunteered and not resulting from a formal assessment or audit. Positive or negative. | 2               | 2   | 1    | 0   | 5     | 5                 | 52             |
| Site visits by Senior Leadership  | 0               | 0   | 0    | 0   | 0     | 0                 | 0              |
| Weekly site inspection visits by H&S advisors   | 4               | 4   | 2    | 0   | 10    | 6                 | -              |

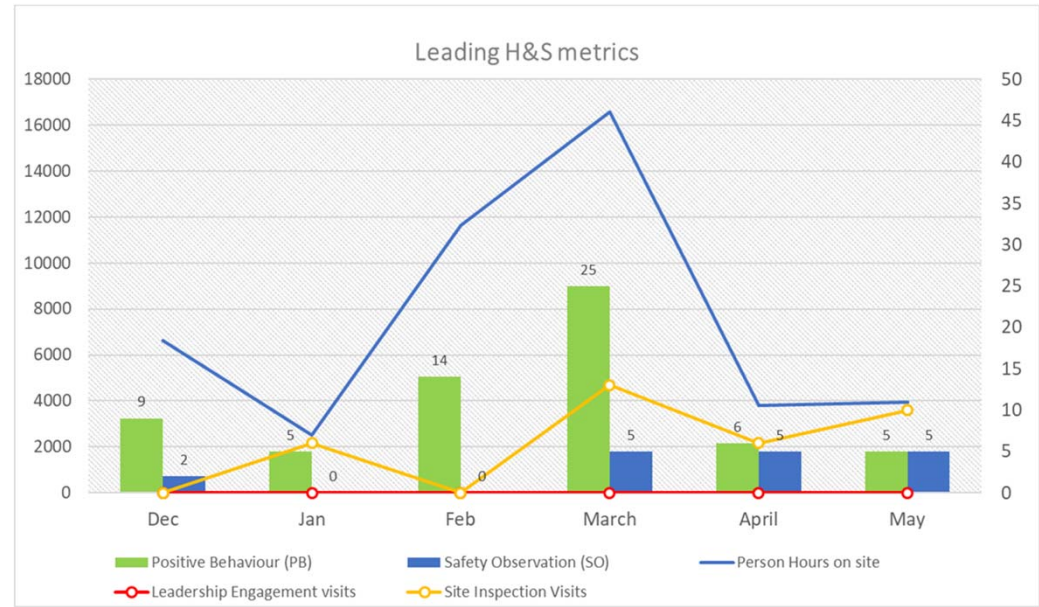


Figure represents the total hours worked on site against leading H&S metrics for each reporting period

|                                     | Period May 2020 | Period April 2020 | Total to Date* |
|-------------------------------------|-----------------|-------------------|----------------|
| Health, Safety and Wellbeing Alerts | 4               | 4                 | 15             |

| HS&W Snapshot                | Date Issued |
|------------------------------|-------------|
| It's all about the hygiene   | 1 May 2020  |
| Mental Health Awareness Week | 15 May 2020 |
| Kindness                     | 22 May 2020 |
| Cleaning and Hygiene         | 29 May 2020 |

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





# Health, Safety & Wellbeing Dashboard (3 of 5)



| Lagging Metrics   | Period May 2020 |     |     |     |       | Period April 2020 | Total to Date* |
|---|-----------------|-----|-----|-----|-------|-------------------|----------------|
|   | E1A2            | E1B | E2A | E2B | Total |                   |                |
| Death; Major injury (RIDDOR); Fire; Significant (EA reportable) release to environment                                | 0               | 0   | 0   | 0   | 0     | 0                 | 0              |
| IP is removed from site for treatment or recovery   | 0               | 0   | 0   | 0   | 0     | 0                 | 1              |
| Minor injury treated on the site with basic first aid   | 0               | 0   | 0   | 0   | 0     | 0                 | 17             |
| An event not causing harm, but has the potential to cause injury or ill health  | 0               | 0   | 0   | 0   | 0     | 0                 | 14             |
| As RIDDOR   | 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            | 2               | 2   | 1   | 0   | 5     | 6                 | 34             |
| A set of conditions or circumstances that have the potential to cause injury or ill health, including poor procedures | 2               | 0   | 0   | 1   | 3     | 3                 | 72             |
| Abuse, physical threats or actions short of violence  | 0               | 0   | 0   | 0   | 0     | 0                 | 0              |

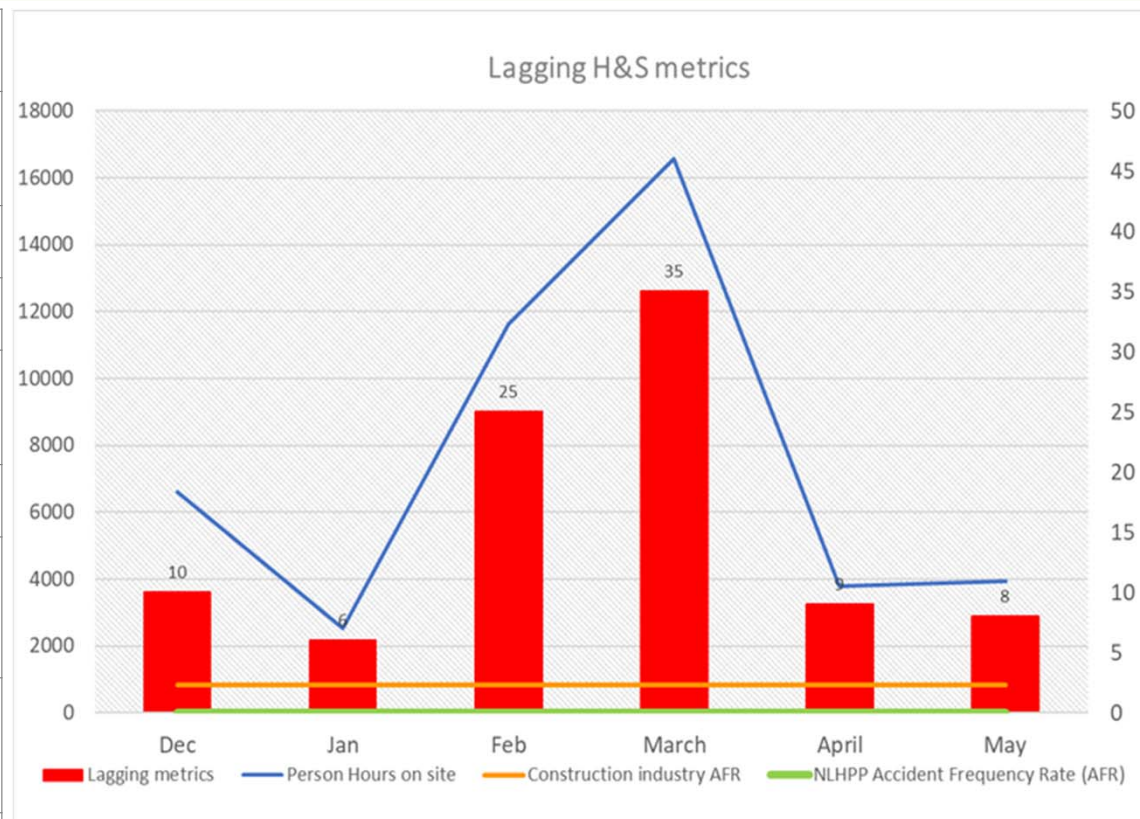


Figure represents the total hours worked on site against lagging H&S metrics for each reporting period and the NLHPP Accident Frequency Rate (AFR) comparing to the Construction industry AFR

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



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



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

AFR for Reporting Period

NLHPP

0.00

Construction Industry

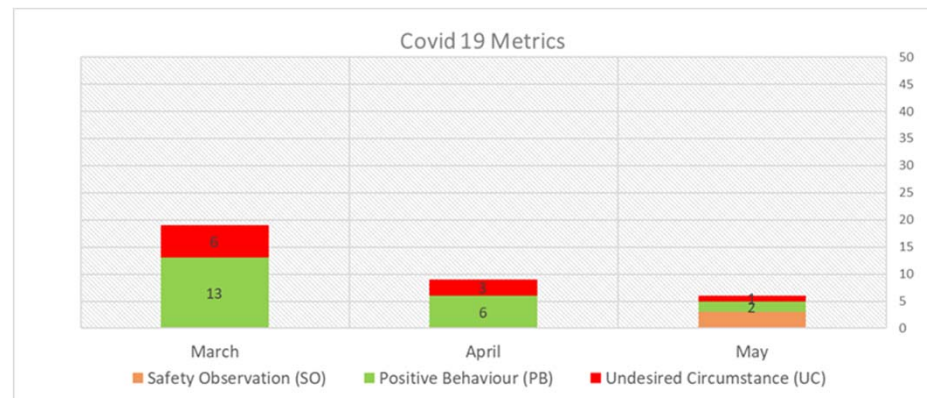
2.32

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

## COVID –19 RELATED (according to CLC SOP<sup>\*\*\*</sup>)

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

|                          | Period May 2020 |     |     |     |                   | Period April 2020 | Total to Date* |
|--------------------------|-----------------|-----|-----|-----|-------------------|-------------------|----------------|
|                          | E1A2            | E1B | E2A | E2B | Total             |                   |                |
| <b>COVID –19 related</b> | 2PB, 2SO, 1UC   | 0   | 1SO | 0   | 6 (2PB, 3SO, 1UC) | 9                 | 32             |



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 Dashboard (5 of 5)



Examples of the identified key incidents on site, including those deemed of particular note by the Health and Safety Team for May, have been tabulated along with their respective response actions.

| Site                         | Key Incidents on Site   | Response/Action  |
|------------------------------|---|--|
| <b>E1A2 - Laydown West</b>   | (PB) Covid 19 arrangements continue to improve.   | Good performance. Just one minor transgression of inadvertent breach of social distancing. Remobilisation plans are good and temperature checks on entry to site will be included. |
|                              | (EXT) Security on Lee Parkway   | Following April's security and theft issue contractor's further measures have been effective. Site is being monitored by security patrol.  |
|                              | (EXT) Security from the river Lee navigation  | Unauthorised access onto the site remains an issue. Two further incidents recorded in May.   |
| <b>E1B - Northern Access</b> | (PB) Covid 19 arrangements  | Good plans in place and opportunity has been taken to check, test and re-calibrate equipment.  |
|                              | (EXT) Adjacent industrial units.  | Adjacent industrial units generating significant noise (metal crushing) and dust (concrete crushing) issues Galdris monitoring.  |
|                              | (SO) Asbestos cement pipe   | Asbestos cement pipe double bagged and stored securely awaiting removal.   |
|                              | (SO) Cable tracing  | Cable tracing work is imminent.  |
| <b>E2A - Transport Yard</b>  | Minor activity. Good Covid-19 management including temperature checks. Theft of survey equipment from van on site.                                  |  |
| <b>E2B - Enabling works</b>  | Visit carried out at the beginning of April assured us that the site was securely hoarded and in a safe condition.                                  |  |
|                              | Unable to enter LEL property during most of May. Only one cursory HS&W check. No construction works on this site.                                   |  |
|                              | (UC) Temporary hoarding surrounding Wash Bay building partially collapsed over w/e of 23rd/24th May—evidence indicates due to unusually high winds. |  |