

Cleanaway responses to recommendations in the IEA Report 2024

Cleanaway Resource and Recovery Lucas Heights Resource Recovery Park SSD 6835 Independent Environmental Audit Action Plan

Ethos Environmental Australia undertook an Independent Environmental Audit of the Lucas Heights Resource Recovery Park (LHRRP) on the 8th and 10th of May 2021.

The site is operated by Cleanaway (CWY), and we provide below actions we plan to take in response to the audit report and recommendations.

The summary of the IEA recommendations relating to management plans and site observations, along with CWY responses and plans are summarised in the table below.

Table 1 *Summary of report recommendations and proposed plan of action.*

Table 14 Summary of IEA recommendation s Source	Recommendation	CWY Plan	Expected Completion Date
Site observations & Condition C58	2024 IEA REC 01: Develop and implement the annual weed control program for 2024	Weed survey was conducted in the first week of August 2024 and weed control needs identified will be implemented by end of 2024.	31/12/24
Site observations & Condition C37	2024 IEA REC 02: Review and assess the integrity of the concrete bund containing the waste oil tank at the back of the public drop off area	The review will be conducted accordingly.	31/12/24
Incident review	2024 IEA REC 03: Ensure that monitoring at EPA Point 1 is undertaken within 24 hours of discharge as required by EPL Condition M2.3.	Noted. CWY has always ensured that the EPA Point 1 is monitored during wet weather discharge in compliance with EPL Condition M2.3. Please refer to the Responses to Table 7 below	On-going
Incident review	2024 IEA REC 04: Include further details in incident reports to capture all aspects of the incident, such as sources of contamination and / or causes of the incident, to allow for effective identification of corrective and preventative measures	Noted. CWY will include more details in the investigation report. Please refer to the Responses to Table 7 below	On-going
Incident review	2024 IEA REC 05: Ensure all incidents and exceedances of concentration limits are recorded in Cleanaway's incident management system so that they are appropriately investigated, and a record is retained.	CWY has implemented a system called "MYOSH" for incident management and record keeping. Please refer to the Responses to Table 7 below	Implemented

Cleanaway responses to recommendations in the IEA Report 2024

Incident review & Condition D10	2024 IEA REC 06: Implement a process to ensure DPHI and any other relevant agencies are notified immediately of any incident that causes (or may cause) material harm to the environment or any exceedance of limits or performance criteria in the Consent.	CWY has implemented a system called “MYOSH” for incident management and record keeping. Please refer to the Responses to Table 7 below	Implemented
Complaint review	2024 IEA REC 07: Implement checks to ensure that all complaints received are included in the complaints reporting presented in the AEMR, including multiple complaints received from the same complainant	A complaint register had been included in the AEMR. CWY to review the procedure in handling repeated complaints from the same complainant.	Implemented
Complaint review & Condition D9	2024 IEA REC 08: Include within the discussion of complaints in the AEMR, details of any actions taken as an outcome of complaints received	CWY always closes out complaints after the issue has been addressed in MYOSH. We shall ensure these are included in the AEMR going forward.	Implemented
Surface water management performance & Condition C30	2024 IEA REC 09: Conduct a review by an expert of Erosion and Sediment Control and Management at the site and implement additional controls to improve water quality in water discharging from the site such as to Mill Creek and the clean water drain to the north of the landfill area. 2024 IEA REC 10: Implement additional erosion and sediment controls at the western GO Facility area, near the access road across Mill Creek to prevent sediment from entering Mill Creek	CWY has engaged GHD to conduct a review of the erosion and sediment control and management at the site, and to update the Soil and Water Management Plan and Monitoring Program. The review and the update of the above report is expected to be completed by end of 2024. CWY will provide an updated RAR when the action is completed.	31/12/24
Surface water management performance & Condition C30	2024 IEA REC 11: Reinstate periodic (rainfall based) surface water monitoring at locations along Mill Creek upstream and downstream of the LHRRP to better understand the performance of the Landfill in managing their impacts on the Creek. Consider aligning these with the monitoring locations chosen for the Aquatic Habitat monitoring	The Soil and Water Management Plan and Monitoring Program is currently under review and updating. CWY will provide an updated RAR when the action is completed	31/12/24
OEMP review & Condition D4	2024 IEA REC 12: Update the OEMP to incorporate the measures identified in the MOD 2 Modification Assessment and to remove activities and references related to the ARRT and submit to DPHI for approval	The OEMP is currently under review and updating. CWY will provide an updated RAR when the action is completed	31/12/24

Cleanaway responses to recommendations in the IEA Report 2024

<p>OEMP review & Condition D6</p>	<p>2024 IEA REC 13: Update the OEMP to remove references to SUEZ and to reflect Cleanaway’s management system, structure, key roles and responsibilities, internal audit and review processes and complaint and incident management and reporting.</p> <p>2024 IEA REC 14: Undertake a thorough and detailed review of the OEMP to improve its readability, including consolidating sections to remove duplication. For example, complaint management is discussed in Section 6.5.2 and Section 7.14, incident reporting is discussed in Section 5 (EPA reporting) and Section 6.4 (DPHI reporting), staffing is discussed in Section 4 and Section 7.10</p> <p>2024 IEA REC 15: Update the OEMP to discuss the consultation undertaken in preparation of the OEMP as required by Condition D4. Consider including evidence of this consultation as an appendix to the OEMP.</p> <p>2024 IEA REC 16: Update Noise section of OEMP to reflect MOD 2 including adding noise limits and monitoring location for new receiver R8, The Ridgeway, and updated landfill operation hours.</p>	<p>The ongoing OEMP review will address all the issues raised in IEA REC 13 – 16. It will address legibility, consistency and duplication. It will also provide current management system, structure, key roles and responsibilities of key personnel. The revised OEMP will also cover both internal audit and review processes, including reporting and management of complaints and incidents. CWY will provide an updated RAR when the action is completed</p>	<p>31/12/24</p>
<p>AQOMP review & Condition C11A</p>	<p>2024 IEA REC 17: Update the AQOMP in accordance with Condition 11A, including ensuring consultation with the EPA, and submit to DPHI.</p> <p>2024 IEA REC 18: Update the AQOMP to remove references to SUEZ and to ensure roles and responsibilities align with Cleanaway staff</p> <p>2024 IEA REC 19: Update the AQOMP to reference all of the EPL conditions that are relevant to odour including: EPL Condition U1.1 which relates to implementing and maintaining the measures to reduce risk of odours outlined in the PRP review report; and Condition E5 which requires that gas field infrastructure is installed and maintained to minimise the emission of odours</p> <p>2024 IEA REC 20: Consider including additional discussion of landfill gas management and references to the landfill gas monitoring program.</p>	<p>AQOMP will be reviewed and updated to address REC 17 –23. This process will ensure accuracy of names and responsibilities of personnel, and the correct locations of monitoring points. It will also reflect CWY ownership of the site, and our strategy for maintaining gas infrastructure.</p> <p>The elevated TSP (Rec 23) could be an artifact effect of malfunction at the weather station. The weather station is frequently serviced by the provider when faults are recognised. CWY can implement a monthly maintenance check of the TSP to address the monitor issue.</p> <p>The AQOMP will guide CWY in ensuring effective air emission management and compliance with Condition E5. CWY will provide an updated RAR when the action is completed</p>	<p>31/12/24</p>

Cleanaway responses to recommendations in the IEA Report 2024

	<p>2024 IEA REC 21: Update Section 9 (table 7) of the AQOMP to make it clear that the 4 g/m²/month depositional dust criteria is an annual average. Similarly, the 90 µg/m³ Total Suspended Particulate (TSP) criteria is also an annual average. Reporting in the AEMR should reflect this understanding.</p> <p>2024 IEA REC 22: Update the AQOMP to discuss the change in location of Dust Gauge 1 and to show the location of the new gauge.</p> <p>2024 IEA REC 23: Investigate the cause of the frequent TSP monitor outages to ensure continuous monitoring of TSP is undertaken as per the AQOMP</p>		
GMP update and Conditions C35	<p>2024 IEA REC 24: Resolve issue over requirement for a Water Access Licence and obtain DPHI approval of GMP.</p> <p>2024 IEA REC 25: Include reference to where in the GMP each requirement has been addressed. In addition, include reference to Condition D8 which includes a number of triggers for updating the strategies, plans and programs required under SSD 6835.</p> <p>2024 IEA REC 26: Update the GMP to reflect approved works including the GO facility and removal of ARRT facility and to reference the modified Consent and most up to date EPL, noting the changes to Condition C36 for additional monitoring.</p> <p>2024 IEA REC 27: Update the GMP to include EPL and AEMR reporting requirements.</p>	<p>The GMP had been updated and submitted while waiting for the audit report. DPHI had accepted the report with no further comments on 14 August 2024.</p> <p>For REC 24, the updated report proposed the Water Access Licence issue be dealt with separately as it is not within the scope of the GMP.</p> <p>For REC 25, the requirements on Condition C35 are included in Section 1 but no need to repeat Condition D8 as it is not specific for the GMP.</p> <p>For REC 26, the GMP has been updated to include changes in relation to MOD 2.</p> <p>For REC 27, the monitoring requirements are included in Section 5.</p>	Completed
Groundwater Monitoring & Condition C36	<p>2024 IEA REC 28: Undertake a more detailed interpretation and analysis of groundwater monitoring results against the groundwater trigger levels adopted in the GMP. Undertake Mann-Kendall Trend Analysis on an annual basis to determine if there are statistically significant trends at the monitoring points as outlined in the GMP and provide a discussion of this analysis in the AEMR</p>	<p>CWY will consider including the groundwater analysis in the AEMR.</p>	31/12/24
Aquatic Habitat Monitoring Plan (AHMP)	<p>2024 IEA REC 29: Update the AHMP to reflect MOD 2 and remove discussion of the ARRT Facility</p>	<p>The AHMP is currently under review and updating.</p> <p>GHD had been consulted and they will provide comments in relation to the</p>	31/12/24

Cleanaway responses to recommendations in the IEA Report 2024

	<p>2024 IEA REC 30: Consult with the GHD aquatic ecologist on whether not commencing the monitoring prior to construction has had a significant effect on the baseline data and whether any changes are required to the aquatic habitat monitoring program to account for this such as additional monitoring</p>	<p>recommendations from the auditors. CWY will provide an updated RAR when the action is completed</p>	
<p>Mill Creek Stream Rehabilitation, Stabilisation and Vegetation Management Plan review</p>	<p>2024 IEA REC 31: Update the Mill Creek Stream Rehabilitation, Stabilisation and Vegetation Management Plan to reflect MOD 2 and remove discussion of the ARRT Facility</p>	<p>The Mill Creek Stream Rehabilitation, Stabilisation and Vegetation Management Plan is currently under review and updating.</p>	<p>31/12/24</p>
<p>Soil and Water Management Plan and Monitoring Program review.</p>	<p>2024 IEA REC 32: Update the Soil and Water Management and Monitoring Plan to reflect current site conditions, controls, and operating practices.</p> <p>2024 IEA REC 33: Revise the Soil and Water Management and Monitoring Plan to include performance indicators for Mill Creek and broaden the water quality monitoring program so that impacts to Mill Creek can be measured. This should consider additional monitoring locations along Mill Creek, additional analytes including metals and additional frequency, for example when there is rain but no discharge from site.</p> <p>2024 IEA REC 34: Update Figure 0.2 of the Soil and Water Management and Monitoring Plan 'Indicative locations of monitoring points' (26/09/2017) with a better plan showing the actual monitoring locations.</p> <p>2024 IEA REC 35: Include a detailed plan within the Soil and Water Management and Monitoring Plan showing the drainage lines and defining the type and location of controls to mitigate impacts to Mill Creek.</p> <p>2024 IEA REC 36: Update the Reporting and Review section of the Soil and Water Management and Monitoring Plan to include AEMR reporting requirements. The AEMR should include details of the overflow and discharge events that occurred during the year and the rainfall that was received prior to these events as well</p>	<p>The Soil and Water Management Plan and Monitoring Program is currently under review and updating. Please refer to the response above for REC 09 and 10</p>	<p>31/12/24</p>

Cleanaway responses to recommendations in the IEA Report 2024

	as a discussion of the measures that were taken to avoid and minimise water pollution		
GO Facility Construction Environmental Management Plan (CEMP) review	<p>2024 IEA REC 37: Update the GO Facility CEMP to remove references to SUEZ and reflect Cleanaway's management system, including roles and responsibilities and references, training, project website, and complaint and incident management and reporting.</p> <p>2024 IEA REC 38: Update the GO Facility CEMP to reflect MOD 2 and remove discussion of the ARRT Facility</p> <p>2024 IEA REC 39: Include a revision history / document control box within the GO Facility CEMP.</p>	The CEMP is currently under review and updating. CWY will provide an updated RAR when the action is completed.	31/12/24 31/12/24
VFMP review	2024 IEA REC 40: Update the VFMP to reflect MOD 2 and remove discussion of the ARRT Facility.	The VFMP is currently under review and updating. CWY will provide an updated RAR when the action is completed.	31/12/24
Erosion and Sediment Control Plan review	2024 IEA REC 41: Update the Erosion and Sediment Control Plan to reflect MOD 2 and remove discussion of the ARRT Facility.	The Erosion and Sediment Control Plan is currently under review and updating. CWY will provide an updated RAR when the action is completed.	31/12/24
CTMP review & Condition C48	<p>2024 IEA REC 42: Update the CTMP to include procedures for notifying residents and the community of any potential disruptions to routes.</p> <p>2024 IEA REC 43: Update the CTMP to reflect MOD 2 and remove discussion of the ARRT Facility</p>	The CTMP is currently under review and will be updated to include protocols for notifying residents of changing traffic conditions and changes in relation to MOD 2. CWY will provide an updated RAR when action is completed.	31/12/24
Condition C30	2024 IEA REC 44: Ensure all exceedances are appropriately reported in the Annual Returns to the EPA and in the AEMRs.	Noted. Exceedances are routinely reported to the EPA and are being included in the Annual Returns from the next one.	On-going
Condition C45 and C46	<p>2024 IEA REC 45: Seek retrospective approval from the decision maker that the alternative ecosystem credits purchased and retired meet the offset rules and satisfy the requirements of Condition C45.</p> <p>2024 IEA REC 46: Seek retrospective approval from DPHI on the revised Biodiversity Offset Strategy.</p>	The Biodiversity Offset Strategy had been approved by DPHI and credits retired. Further clarification from DPHI will be sought.	31/12/24
Condition C53	2024 IEA REC 47: Ensure that the operating hours specified by the Consent are adhered to.	Noted. CWY shall continue to closely monitor operational hours.	On-going

Cleanaway responses to recommendations in the IEA Report 2024

Condition 56	2024 IEA REC 48: Ensure annual noise monitoring and monitoring undertaken to address noise complaints is provided to DPHI within one month of completing the monitoring.	Noted. Annual noise monitoring report had been included in the AEMR.	On-going
Condition D8	2024 IEA REC 49: Implement a process to ensure management plans are reviewed (and revised if necessary) following a reportable incident, Annual Review, and/or Modification to the consent. Ensure the review process is documented, in particular where plans are reviewed but do not require revision.	CWY has a culture of schedule reviews of its management plans and environmental risk register.	On-going
Condition D11	2024 IEA REC 50: Implement a process to ensure a detailed report is provided to DPHI within seven days of any reportable incident or exceedance	Noted.	On-going
Condition C10	2024 IEA REC 51: Ensure any future outages of the weather station that result in continuous monitoring not being undertaken are reported in the Annual Return to the EPA.	Noted.	On-going
Condition 58	2024 IEA REC 52: Update the Weed Management Plan to reflect the change in administration of the weed control program between SSC and Cleanaway and ensure this is reflected in the Action Plan responsibilities.	The Weed Management Plan is currently under review and updating. CWY will provide an updated RAR when the action is completed.	31/12/24
Condition D9	2024 IEA REC 53: Include discussion of TSP monitoring results in AEMR.	Noted.	On-going
Opportunity for Improvement			
Source	Opportunity		
B16, B17 and D2	2024 IEA OFI 01: Implement processes to ensure that employees, contractors, and sub-contractors are made aware of modifications to the Consent. 2024 IEA OFI 02: Introduce measures to encourage reporting by contractors of environmental incidents, (including minor incidents) to Cleanaway	Noted. Noted.	On-going
D2	2024 IEA OFI 03: Update Appendix B of the GO Facility CEMP to include the most up to date CEMP for the Dual Gas and Leachate Trench construction works.	The CEMP is currently under review and updating.	31/12/24

Cleanaway responses to recommendations in the IEA Report 2024

Responses to Table 7 of IEA

Date	Category	Details	Reported	Response
19 - 21/03/2022	Leachate contamination of surface water	<p>Sediment Dam 5 went into overflow on 19/03/2022.</p> <p>On 21/03/2022, leachate was found in the stormwater drain leading to Sediment Dam 5.</p> <p>Cleanaway reported that it engaged pumps at MC1 (EPA Point 1) and Sediment Dam 5 to pump the contaminated water in Sediment Dam 5 into the leachate collection system.</p> <p>The source of the contamination was identified as seepages from the waste batter in Area G. The seepages were diverted into the nearby leachate cutoff trench to enter the leachate management system Monitoring was undertaken on the 21/03/2022 which identified that ammonia levels were below the EPL limit of 2.5 mg/L for EPA Point 1.</p>	<p>Reported to the EPA and DPHI</p> <p>No further action / correspondence was received from the EPA following provision of the written report</p>	<p>CWY reported to EPA and DPHI about the main source of contamination.</p>
19 - 21/03/2022	Leachate contamination of surface water	<p>It was reported to the auditor that at a similar time to the incident described above where leachate seepages from Area G had entered the stormwater system, the GO Facility leachate pond had also overtopped resulting in leachate to enter the stormwater system.</p> <p>Further details of this incident were not available as it had not been recorded in Cleanaway's incident management system. Cleanaway stated that this was considered the same incident as the incident described above.</p>	<p>Not reported to EPA or DPHI</p>	<p>Same incident as above but not been included in the report to EPA and DPHI as it was not considered as the main source of contamination. However, CWY will include more details in all future incidents.</p> <p>Since 2023, the GO area has been reduced significantly and so as the amount of GO leachate.</p> <p>In addition, CWY has the approval from EPA to treat the GO leachate by the onsite Leachate Treatment Plant and</p>

Cleanaway responses to recommendations in the IEA Report 2024

				therefore the recurrence of this is unlikely.
27/03/2022	Leachate contamination of surface water	<p>During heavy rainfall, the bund at the organics pad was damaged causing stormwater that had been in contact with organics to enter the stormwater system and Mill Creek.</p> <p>Runoff from the organics pad is typically collected and treated as leachate.</p> <p>This incident was not recorded in Cleanaway's incident management system.</p> <p>Cleanaway reported in the Annual Return, that immediate actions were taken to reinstate the bund and to transport potentially contaminated stormwater offsite to the Cleanaway Homebush facility for treatment.</p>	The ammonia exceedance caused by this incident was reported to the EPA in the 2022 Annual Return Not reported as an incident to EPA or DPHI	<p>This was not reported to EPA/DPHI immediately due to human error and miscommunication of the ex-environmental person on site. CWY reported to EPA in the Annual Return once the error was identified.</p> <p>Since 2023, the GO area has been reduced significantly and so as the amount of GO leachate.</p> <p>In addition, CWY has got the approval from EPA to treat the GO leachate by the onsite Leachate Treatment Plant and therefore the recurrence of this is unlikely.</p>
8/04/2022	Leachate contamination of surface water	<p>During heavy rainfall the drains controlling surface run-off at the tip face were damaged causing stormwater that had been in contact with the tip face to enter the stormwater system and Mill Creek.</p> <p>Runoff from the tip face is typically collected and treated as leachate.</p> <p>This incident was not recorded in Cleanaway's incident management system.</p> <p>Cleanaway reported in the Annual Return, that immediate actions were taken to reinstate the drains and direct all potentially contaminated surface run-off from the tip face to the leachate dam for treatment. Additional drains were also reported to have been installed to prevent this from re-occurring.</p>	The ammonia exceedance caused by this incident was reported to the EPA in the 2022 Annual Return Not reported as an incident to EPA or DPHI	<p>This was not reported to EPA/DPHI immediately due to human error and miscommunication of the ex-environmental person on site. CWY reported to EPA in the Annual Return once the error was identified.</p> <p>CWY has implemented a system called "MYOSH" for incident management and record keeping.</p>

