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28 September 2026

Office of the Coordinator-General
PO Box 15517
City East Queensland 4002

Attention:

Via email:

Dear

Re: Seqwater Referral Entity Advice – Final Amended Advice – SDA Application for a Material Change of Use – Special Industry (Waste to Energy Facility – Incinerator) in the Bromelton State Development Area (SDA) – Beaudesert Boonah Road, Bromelton – Lot 1 on RP45234

Seqwater refers to the Office of the Coordinator-General's (OCG) letter dated 5 August 2026 concerning the applicant's response to the Request for Information. As a referral entity for the application, Seqwater provides its final advice on the water quality and energy and water supply State Interests relevant to the proposed development in the Bromelton State Development Area (SDA).

Seqwater's interests

Seqwater's interest is the protection of drinking water catchment values, source-water quality and the safe and reliable supply of bulk drinking water. The proposed development involves the State Interest for 'Water Quality' and 'Energy and Water Supply', as specified in the *State Planning Policy July 2017* (SPP).

The SPP mapping shows the proposed development within the **Water Resource Catchment** and **Water Supply Buffer Area** for the Logan River, supplying the Beaudesert Water Treatment Plant and future Wyaralong Water Treatment Plant.

The Energy and Water Supply State interest is directly relevant because Seqwater operates the Beaudesert Water Treatment Plant and is responsible for bulk water supply to the Scenic Rim and Logan regions. The Logan River catchment is also relevant to the planned future Wyaralong Water Treatment Plant.

Assessment to date

Throughout the assessment of the proposed Bromelton Energy and Resource Centre (BERC), Seqwater has focused on identifying and managing potential risks to the Logan River drinking water catchment and current and future bulk water supply infrastructure.

Seqwater acknowledges that the applicant has addressed a number of matters raised during the assessment, including site design, wastewater generation (sewage), storage of hazardous chemicals and materials and water supply/demand. Residual uncertainties remain in relation to emissions, contamination from the operation of the facility, and potential impacts on the drinking water catchment. Seqwater considers that the amended material, together with stringent and enforceable conditions, provides a basis for these matters to be managed through the approval and operational compliance framework.

Seqwater has worked with the applicant, OCG, and Queensland Health and Department of Environment, Tourism, Science and Innovation (DETSI) to clarify the relevant water-quality risks and the safeguards required to manage them.

The absence of directly comparable case studies creates uncertainty regarding the potential long-term interaction between the proposed facility and a drinking water catchment. Seqwater considers that this uncertainty can be appropriately managed through stringent feedstock controls, monitoring, defined trigger levels, corrective-action requirements and transparent reporting over the life of the development.

Seqwater's remaining interest relates primarily to potential emissions and contaminant pathways affecting the Logan River drinking water catchment and current and future bulk water supply infrastructure. In particular, uncertainties remain regarding PFAS and other emerging contaminants, cumulative impacts over the operating life of the facility and the capacity to identify and respond to changing contaminant risks.

Seqwater considers that these matters require a precautionary and adaptive management framework rather than reliance solely on predictive assessment. Accordingly, Seqwater has developed conditions requiring feedstock controls, baseline and ongoing monitoring, defined trigger levels, incident response, corrective action and periodic review. On the basis that the recommended conditions are imposed in full, effectively administered and enforced for the life of the development, Seqwater does not object to approval of the proposed development.

Conclusion

Having considered the applicant's amended material and the safeguards that can be secured through enforceable approval conditions, Seqwater does not object to approval of the proposed development, subject to the conditions in Attachment A being imposed in full and effectively administered and enforced for the life of the development.

Seqwater's recommended conditions address six critical areas:

1. Water Quality Management Plan
2. Waste Feedstock Management
3. PFAS Verification and Monitoring
4. Drinking Water Catchment Trigger Framework
5. IBA and IBAA Management
6. Stormwater and Surface Water Protection

The recommended conditions are necessary to provide Seqwater with sufficient assurance that risks to the Logan River drinking water catchment, existing and future source-water quality, and bulk water supply operations will be appropriately monitored and managed over the life of the development.



Seqwater's position is based on the substance and intended effect of the recommended conditions being retained. Seqwater requests consultation before any material amendment to, or removal of, a recommended condition so that the implications for drinking water quality and bulk water supply can be assessed.

Attachment A provides Seqwater's recommended conditions as well as supporting assessment details and reasoning. Seqwater requests that OCG incorporate these conditions into any approval and ensure that clear responsibility is assigned for their administration, compliance monitoring and enforcement.

Should you have any queries regarding the above, please contact [REDACTED]

Yours sincerely,

[REDACTED]
[REDACTED]

General Manager System Assurance

Attachment A: Seqwater's Assessment of SDA Application for a Material Change of Use

**Attachment A | Seqwater's Assessment of SDA Application for a Material Change of Use
Special Industry (Waste to Energy Facility – Incinerator) in the Bromelton State Development Area
(SDA) – Beaudesert Boonah Road, Bromelton – Lot 1 on RP45234**

Date: 25 September 2026

Seqwater Assessment

Seqwater has reviewed the following relevant application material provided by the applicant and the Office of the Coordinator-General (OCG):

1. Response to Information Request Cover Letter, Ref: 21-0708P/01 – prepared by Therefor Group, dated 29 July 2026;
2. Updated Planning and Assessment Report, Revision 6.0 – prepared by Therefor Group, dated 29 July 2026;
3. Architecture and Landscape Design Strategy Report, Revision C, Ref: BERC ARU BNE ARBU RPT-000001, prepared by ARUP, dated 19 December 2025;
4. Architectural and Landscape Drawings (35 Pages), Ref: 293683-00, Issue R03, ARUP, Cover page dated 19/12/2025;
5. Civil Engineering Drawings, DWG BERC-ARU-BNE-CICW-DRG 1001-1802 (24 Pages), prepared by ARUP (Appendix A);
6. Engineering (Infrastructure) Report, Ref: BERC-ARU-BNE-ENG-RPT-0001, Rev D, prepared by ARUP, dated 21 July 2026;
7. Technical Process Description, Ref: BERC-ARU-BNE-SYWP-RPT-0003, Rev D, prepared by ARUP, dated 27 July 2026;
8. Hazard and Risk Assessment, Ref: BERC-ARU-BNE-ENRI-RPT-0001, Rev D, prepared by ARUP, dated 2 July 2026;
9. Waste Feedstock Report, Ref: BERC-ARU-BNE-SYWP-RPT-0002, Rev D, prepared by ARUP, dated 27 July 2026;
10. Greenhouse Gas Assessment, Ref: D24577-4, Rev D, prepared by Katestone, dated 29 July 2026;
11. Stormwater Management Plan and Flood Risk Assessment, Ref: BERC-ARU-BNE-SWMP-RPT-0001, Rev D, prepared by ARUP, dated 28 July 2026;
12. Air Quality Assessment, Ref: D24578-11, Rev C, prepared by Katestone, dated 22 June 2026;
13. Human Health Risk Assessment, Ref: CLEAN/25/BERC001, Rev E, prepared by Environmental Risk Sciences (EnRiskS), dated 5 July 2026;
14. Socioeconomic Impact Assessment, Ref: BERC-ARU-BNE-SIA-RPT-0001, Rev D, prepared by ARUP, dated 21 July 2026;

15. Pavement Impact Assessment Technical Note, Ref: 293683-69, prepared by ARUP, dated 26 June 2026;
16. Technical Notes – Item 1 (Additional Plans (Drainage Corridor), Ref: BERC-ARUP-RFI-1, prepared by ARUP, dated 26 June 2026;
17. Technical Notes – Item 2-3 (Socioeconomic), Ref: BERC-ARUP-RFI-2-3, prepared by ARUP, dated 21 July 2026;
18. Technical Notes – Item 4-6 (Road Considerations), Ref: BERC-ARUP-RFI-4-5-6, prepared by ARUP, dated 27 July 2026;
19. Technical Notes – Item 7 & 10 (Dangerous Goods), Ref: BERC-ARUP-RFI-7-10, prepared by ARUP, dated 10 July 2026;
20. Technical Notes – Item 8 (Earthworks), Ref: BERC-ARUP-RFI-8, prepared by ARUP, dated 11 May 2026;
21. Technical Notes – Item 9 & 11 (Onsite services), Ref: BERC-ARUP-RFI-9-11, prepared by ARUP, dated 26 June 2026;
22. Technical Notes – Item 35 (PFAS), Ref: BERC-ARUP-RFI-9-11, prepared by ARUP, dated 26 June 2026;
23. Technical Notes – Item 42 & 43 (Q Health Responses), Ref: 1100049472, Version 2.0, prepared by Ramboll, dated 22 July 2026.

Benchmark Assessment Summary

Seqwater has assessed the proposal against the relevant provisions of the Bromelton SDA Development Scheme and the *Seqwater Development Guidelines for Water Quality Management in Drinking Water Catchments* (Seqwater Development Guidelines). The assessment has identified residual uncertainties relating to emissions, emerging contaminants and potential cumulative impacts on drinking water sources. Seqwater considers these matters can be managed through the conditions recommended in this attachment.

The relevant provisions and Seqwater's assessment are summarised below:

1. The SDA Development Scheme Overall Objectives (s 2.3):

Objective (h), requiring the protection and enhancement of water supply catchment values to ensure safe and secure water supply.

Objective (j), requiring avoidance of adverse impacts on environmental values, and mitigation where not reasonably avoidable.

Review: The applicant has not included a detailed assessment of contaminants in stormwater from the development against the Logan Basin drinking water environmental value water quality objectives, both for the site and the outfall area, cumulatively and over the lifetime of the operations. It has been acknowledged in the Human Health Risk Assessment that determination of the extent of contaminants reaching the water supply is difficult to model due to rainfall patterns, intensity and other factors. Uncertainty remains surrounding whether the development is able to meet the environmental value water quality objectives for drinking water across the area of influence.

2. The SDA Development Scheme, section 2.5.4 *Emissions*:

Benchmark (1)(a), requiring avoidance of adverse impacts from air emissions affecting human health and safety. Benchmark (1) (b), requiring avoidance of conflicts arising from air emissions.

Benchmark (3), requiring high emissions development to avoid cumulative impacts on air quality of the Bromelton airshed, through best practice measures.

Review: As impacts of air emissions on human health and safety can be presented through microparticulate matter from air emissions settling on the landscape and being transported to drinking water supplies, the above benchmarks are relevant to Seqwater's interests. As noted above, no detailed assessment against all of the Logan Basin's drinking water environmental value water quality objectives has been submitted by the applicant. Additionally, no directly comparable case study of an energy from waste facility within a drinking water catchment has been presented. Seqwater's own research has been unsuccessful in identifying a comparable facility operating within a drinking water catchment elsewhere in the world, noting that varying Australian and European regulations around feedstock and removal of PFAS from consumer products could reasonably influence contaminant outputs. This makes it difficult to ascertain whether long-term adverse impacts on human health through drinking water contamination are likely or unlikely, particularly in an Australian setting. Seqwater holds particular concern around PFAS/PFOS, VOCs and metals given that these contaminants are included in the Australian Drinking Water Guidelines and therefore Seqwater's mandated obligations for the provision of safe drinking water to its customers.

3. The SDA Development Scheme, section 2.5.8 *Water Quality*:

Benchmark (3) requiring current best practice integrated water cycle management strategies.

Review: Key aspects of the water cycle are water supply (safe and reliable drinking water), groundwater management (leaching into aquifers), stormwater management (acknowledging water quality impacts on-site and across affected outfall areas) and land use integration (suitable location, considering water quality impacts and avoiding conflicts). Seqwater, as part of its Request for Further Information (RFI) dated 20 April 2026, requested alternate case studies be presented reflecting energy from waste facilities within drinking water catchments elsewhere. Although a broad request, no such studies were presented, and as noted above, Seqwater's own research has been unsuccessful in identifying a comparable facility operating within a drinking water catchment elsewhere in the world. With no precedent established for a facility of this type in a drinking water catchment, best practice within this context is difficult to determine for assessment and compliance purposes. This makes it difficult to ascertain whether long-term adverse impacts on human health through drinking water contamination are likely or unlikely. Seqwater holds particular concern around PFAS/PFOS, VOCs and metals given that these contaminants are included in the Australian Drinking Water Guidelines and therefore Seqwater's mandated obligations for the provision of safe drinking water to its customers.

4. The Seqwater Development Guidelines for Water Quality Management in Drinking Water Catchments 2024, a referenced Engineering Standard within the SDA Development Scheme - Performance Outcomes

PO9 (development handling pollutants, protection of surface water),

PO11 (stormwater run-off, minimisation of risk to public safety and drinking water sources),

PO14 (siting of development to improve stormwater quality, achieving water quality objectives and environmental values for drinking water),

PO28 (storage and handling of hazardous materials/chemicals to prevent release to drinking water),

PO30 (design, siting and construction of development to prevent emissions to land/waters used for drinking water).

Review: For the reasons outlined above, noting no detailed assessment against the drinking water environmental value water quality objectives and lack of a comparable case study, the proposed development's compliance with the Seqwater Development Guidelines is unable to be determined. Seqwater requires further assurances that the Performance Outcomes will be met in an ongoing sense, and accordingly, has recommended conditions to provide additional certainty below.

The absence of a directly comparable facility operating in an Australian drinking water catchment limits the extent to which long-term outcomes can be established solely through comparative evidence. Seqwater considers that this uncertainty should be managed through site-specific controls, baseline and operational monitoring, transparent reporting, defined trigger levels and adaptive-management requirements.

Further, it is relevant to note:

- Treated water safety – Relevant for consideration, are the treatment limitations of the current Beaudesert Water Treatment Plant (WTP), at least in the short to medium term, while planned bulk water supply infrastructure augmentations (South West Pipeline and future Wyaralong WTP) are being delivered. The capability of the future Wyaralong Treatment Plant to remove various PFAS/PFOS compounds, and a range of unknown and emerging contaminants also remains unclear as the design of the plant progresses and notably, into the future, as the discovery of new contaminants and associated research are ever-evolving. Whilst it is acknowledged that treatment capabilities should naturally respond to present contaminants in source waters, emerging and unknown contaminants are of concern as they are largely unable to be anticipated. Of all potential uses in the Bromelton SDA, the proposed facility could reasonably be considered to present the greatest risk of generating unknown, emerging and PFAS/PFOS contaminants. Seqwater considers that the prevention of emerging contaminants entering the catchment provides a better safeguard against this uncertainty, rather than removal through treatment. This type of proactive protection of source water, known as the 'multiple barrier approach', forms part of Seqwater's drinking water quality risk management obligation under the Water Supply (Safety and Reliability) Act 2008 and is consistent with the recommendations of the Australian Drinking Water Guidelines.

- Regional Water Security – Frequent shut-downs of the Beaudesert Water Treatment Plant directly due to discharges from other industrial establishments in the Bromelton Area, as well as medium to long term timeframes associated with water treatment and delivery infrastructure augmentation projects designed to assist. Further challenges or shut-downs at the plant would place additional pressure on supplies in the interim.
- Interstate Cases – While New South Wales State parliamentary enquiries progress into two (2) proposed large-scale waste to energy incineration facilities, namely the Parkes Energy Recovery Facility and the Woodlawn/Tarago Advanced Energy Recovery Centre, Seqwater has not identified a directly comparable Australian facility operating within a drinking water catchment under equivalent regulatory, feedstock and treatment conditions. This limits the value of relying on comparative case studies and reinforces the need for site-specific monitoring, transparent reporting and adaptive management conditions.

Discussion and Additional Concerns

PFAS National Legislative Response

Seqwater acknowledges the applicant's responses regarding Seqwater's concerns throughout the assessment of the proposed BERC. Despite these responses, given there remains no comparable precedent or case-study, the sensitivity of the Logan River Catchment to emerging contaminants including PFAS, as well as the provision of future water treatment and supply infrastructure in the catchment, Seqwater's concerns regarding the proposed development remain largely outstanding.

Seqwater's concerns are reiterated from the original RFI regarding the waste streams expected to be received by the facility in both the Waste Feedstock Report, Human Health Risk Assessment Report and the Planning Report and the reduction in the quantity of PFAS that is expected with the introduction of legislation at the Federal and State levels.

Seqwater considers that the example data presented referencing European waste to energy facilities is unlikely to effectively represent the expected emission outcomes of the proposed BERC facility, given the timing and differences in legislation between the European Union (EU) and Australia relating to feedstock acceptance, PFAS reduction and removal in consumer products and waste streams. The EU has regulated PFAS compounds since 2006, with policy and legislation continually evolving within the last 20 years to include new compounds, in conjunction with updated measures and restrictions to minimise PFAS in waste streams. In contrast, the emergence of PFAS related policy and legislation in Australia only began development in earnest from 2010 onwards, with the first National Environmental Management Plan (NEMP) introduced in 2018, with a focus on containment of existing PFAS contamination in the environment as well as a focus on reducing only the most harmful PFAS compounds.

When compared to policies within the EU, the NEMP does not regulate PFAS compounds as stringently, with Australia's PFAS policy evolved from contamination management (2018-2024) to targeted prohibition of PFOS, PFOA and PFHxS (2025 onward). In contrast, since 2006 the EU has been moving toward regulating all PFAS as a chemical class in consumer product and waste outcomes, adopting a lifecycle-based policy to reduce all PFAS compounds as opposed Australia's containment approach. In particular, the EU's REACH program and related legislation focus on

prevention and phase-out of the entire PFAS class across products and industries, aiming to minimise PFAS entering waste streams entirely.

Given the European examples provided operate in a legislative environment with more stringent controls around PFAS compounds within consumer products and waste streams, the observed emissions from EU facilities are unlikely to be reflective of an outcome in Australia currently. This highlights the importance of directly comparable case studies in determining whether the proposed development is likely or unlikely to result in adverse impacts on water quality.

PFAS Destruction Efficiency and Mineralisation

Seqwater remains concerned regarding the proposed waste to energy facility due to the uncertainty surrounding the effectiveness of PFAS destruction and the potential implications for drinking water quality within the Logan River catchment. Protection of source water quality requires a high degree of confidence that hazardous contaminants, including PFAS and other emerging contaminants, will not be released to the environment in a form that could adversely affect drinking water supplies.

CSIRO's 2025 research identifies that the ultimate objective of thermal PFAS destruction is complete "mineralisation", whereby fluorocarbon chains are broken down into stable inorganic compounds such as calcium fluoride, carbon dioxide, carbon monoxide and water. The research also highlights the importance of understanding intermediate reaction products formed during thermal treatment to ensure complete destruction and to avoid the generation of harmful fluorinated by-products.

Seqwater notes CSIRO research demonstrating that while PFAS degradation may commence at lower temperatures, substantially higher temperatures, generally in the order of 950 to 1,000°C or greater, are considered necessary to achieve more complete destruction and minimise the formation of Products of Incomplete Combustion (PICs). Suboptimal combustion conditions can result in PICs, including smaller-chain PFAS compounds and other fluorinated substances that may remain environmentally persistent and mobile.

Based on the information available, Seqwater remains concerned that evidence has not been provided to demonstrate that the proposed facility can consistently achieve complete PFAS mineralisation under all operating conditions, as the proposed operating temperature of approximately 850°C would not reliably achieve complete PFAS destruction and mineralisation should PFAS-containing materials be present within the incoming waste stream.

In particular, there remains uncertainty regarding:

- Whether the application material, including the Human Health Risk Assessment, Air Quality Assessment and Climate/Greenhouse Gas Assessment, adequately characterises the outcomes of PFAS compounds during combustion and the formation, transformation and ultimate deposition of fluorinated compounds.
- Whether the proposed combustion technology and air pollution control systems are capable of achieving complete PFAS destruction and mineralisation, rather than reducing PFAS concentrations while generating other persistent fluorinated compounds.
- Whether the proposed combustion temperature and operating conditions are sufficient to consistently achieve complete destruction and mineralisation of PFAS compounds across the range of waste materials that may be received at the facility.

- The potential for the formation of products of incomplete combustion, including shorter-chain PFAS compounds, trifluoroacetic acid (TFA), fluorinated gases and other persistent fluorinated substances that may present a risk to environmental and drinking water quality.
- The adequacy of the proposed monitoring, verification and compliance framework to demonstrate and independently verify PFAS destruction performance throughout the operational life of the facility.
- The potential generation, persistence, monitoring and management of intermediate fluorinated compounds and other by-products that may be formed during the thermal destruction process.
- The technical evidence supporting any conclusion that complete PFAS destruction and mineralisation can be reliably achieved and verified over the life of the facility.

The potential human health implications of PFAS and related fluorinated compounds, unresolved uncertainty regarding their destruction pathways and the potential release of contaminants represents an unquantified risk to the quality of drinking water sources within the Logan River catchment.

PFAS Remediation

Seqwater notes that remediation of PFAS contamination in drinking water catchments and treatment of PFAS-contaminated source waters is technically complex, operationally challenging and extremely costly. Advanced treatment processes capable of removing PFAS, such as granular activated carbon, ion exchange and reverse osmosis, can require significant capital investment, on-going operational expenditure and continual monitoring. Even where treatment is technically achievable, contamination may persist within catchment soils, sediments, groundwater and aquatic environments for extended periods, making complete remediation difficult and, in some cases, impractical. Consequently, the most effective and cost-efficient approach is to prevent PFAS contamination from occurring in the first instance.

Seqwater holds concern where development may result in any increase in PFAS loading to a drinking water catchment unless it has been robustly demonstrated, with a high degree of certainty, that the risk is negligible and that no adverse impact on source water quality will occur over the life of the development.

Based on the information available, Seqwater is concerned that insufficient evidence has been provided to demonstrate that long-term PFAS risks associated with the proposed facility have been adequately characterised or mitigated.

In particular, uncertainty remains regarding:

- The potential for cumulative PFAS deposition over the outfall area within the Logan River catchment arising from the operation of the facility over the life of the development, acknowledging that the submitted Human Health Assessment notes difficulty in modelling cumulative loads likely to reach water supplies.
- The assumptions adopted regarding acceptable PFAS contributions to receiving environments and whether these assumptions adequately account for the persistence, mobility and bioaccumulative characteristics of PFAS compounds.

- The extent to which ongoing emissions, even at low concentrations, may accumulate within the catchment and ultimately affect drinking water sources over time.

Seqwater considers that drinking water source catchments warrant an especially conservative approach in relation to PFAS contamination. Given the persistence of PFAS in the environment, the potential for bioaccumulation, the evolving understanding of health risks, and the substantial cost and complexity associated with remediation and treatment once contamination occurs, the approval framework should seek to prevent additional PFAS loading to the catchment and require early intervention where monitoring identifies an exceedance or adverse trend.

Accordingly, Seqwater considers that the development has presented insufficient information to confirm compliance with Performance Outcomes PO9, PO11, PO14, PO28 and PO30 of the Seqwater Development Guidelines.

The available information does not eliminate uncertainty regarding potential PFAS contributions over the operational life of the facility. Seqwater therefore considers that approval should include enforceable requirements for feedstock management, validated monitoring, trend analysis, trigger levels and corrective action.

Conclusion

Throughout the assessment of this proposed BERC, Seqwater has raised a number of concerns primarily related to the potential contamination of the Logan River catchment and subsequent impacts on human health, drinking water quality and increased water treatment costs.

Continued discussion with stakeholders, referral agencies and subject matter experts, along with further research regarding best practice outcomes, waste-to-energy incineration technology, current applications and approvals throughout Australia and comparative international examples has raised further concerns regarding the proposed development.

Seqwater is obligated as the bulk water supply authority, to protect and enhance drinking water catchments through the 'multiple barrier approach' described in the Australian Drinking Water Guidelines 2011 (Updated 2025). Treatment of drinking water to the parameters outlined in the ADWG is Seqwater's legislated responsibility, in providing safe drinking water to the community. The responsibility for protecting the future water supply to the planned Wyaralong Water Treatment Plant is also of utmost importance, to ensure a continuous and sustainable supply into the future. Development in drinking water catchments that has an adverse impact on the quality of raw drinking water supply challenges Seqwater's ability to provide safe, cost-effective drinking water to its customers.

Notwithstanding the presence and intent of the Bromelton State Development Area, the need remains to ensure the appropriate location of potentially contaminating or high-risk developments. This accords with the vision of the SDA Development Scheme, which outlines the establishment of *suitable* high impact industries whilst protecting and where possible, enhancing the values of water supply catchments.

Seqwater acknowledges and appreciates that the OCG plans to undertake an SDA-wide air and water quality assessment in due course and looks forward to assisting through the provision of water quality sampling data.

Should the OCG determine to approve the proposed development, to manage the identified water-quality risks and provide ongoing assurance over the life of the development, recommended conditions have been provided below for the OCG's consideration.

Seqwater Recommended Conditions
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Based on the applicant's amended documents and Seqwater's assessment, Seqwater recommends that the following conditions be employed as part of the Development Permit:

1. Water Quality Management Plan (WQMP)

- 1.1. Prior to commencement of use, the applicant must prepare and submit to Seqwater a Drinking Water Catchment Protection Management Plan, prepared by a suitably qualified person, demonstrating how contaminants associated with the approved development will be prevented from entering the Logan River Catchment.
- 1.2. The WQMP must be developed in accordance with the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, including the Water Quality Management Framework published under the National Water Quality Management Strategy, aligning with the Australian Drinking Water Guidelines regarding emerging contaminants including PFAS.
- 1.3. The plan must:
 - 1.3.1. document the existing environmental values, receiving water environments, catchment characteristics, groundwater and surface water resources that may be affected by the development;
 - 1.3.2. develop a conceptual model identifying water quality risks, contaminant sources, pathways, receptors, relevant pressures, stressors, ecosystem receptors and mitigation measures;
 - 1.3.3. include an Emerging Contaminants Management Program which adopts a monitoring program for PFAS and other identified contaminants of emerging concern where a risk of release exists, including monitoring locations, analytes, trigger values, sampling frequency and analytical methods;
 - 1.3.4. demonstrate that the development will not cause a deterioration in the quality of existing or potential drinking water sources and will protect environmental values of waters;
 - 1.3.5. incorporates health-based guideline values, investigation levels and management responses consistent with the Australian Drinking Water Guidelines, including guideline values for PFOS, PFOA, PFHxS, PFBS;
 - 1.3.6. establishes actions, notification procedures and corrective measures where monitoring identifies emerging contaminants or PFAS concentrations exceeding adopted trigger values or indicating an increasing trend;
 - 1.3.7. provides for periodic review responsive to emerging contaminant risks, monitoring requirements and management measures in response to changes in scientific knowledge, regulatory requirements or updates to national guidance.
 - 1.3.8. provide for review of the WQMP to Seqwater at intervals not exceeding five (5) years.

- 1.3.9. includes a rigorous and agile continuous emissions monitoring regime, responsive to the parameters for PFAS/PFOS, heavy metals and emerging contaminants of concern in the most current version of the Australian Drinking Water Guidelines (ADWG).
- 1.3.10. Provides for the submission of continuous air and basin emissions testing results to Seqwater by the site operator, at intervals no less than 6 monthly, for any exceedance of PFAS/PFOS (as regularly revised in the ADWG), and at any time requested by Seqwater.
- 1.4. The approved WQMP must be implemented and maintained for the duration of the use.
- 1.5. All aerial emissions, stormwater, wastewater, process water, leachate and contaminated runoff generated by the development must be managed in accordance with the approved WQMP.
- 1.6. Monitoring results of the WQMP must be provided to Seqwater's Catchment Water Quality team annually via the following emails: [REDACTED] [REDACTED]
[REDACTED]
- 1.7. Records of all monitoring, investigations, emergency response activities, corrective actions and reviews undertaken under the WQMP must be retained for a minimum period of five (5) years and made available to the Assessment Manager upon request.

2. Waste Feedstock Management

- 2.1. The approved development must not knowingly accept:
 - 2.1.1. Heavily PFAS-contaminated waste;
 - 2.1.2. PFAS-contaminated soil;
 - 2.1.3. PFAS-contaminated biosolids or liquids; or
 - 2.1.4. any waste stream classified specifically for PFAS destruction or treatment.
- 2.2. A Waste Acceptance Procedure must be implemented for the life of the development which identifies and excludes waste streams known to contain elevated concentrations of PFAS compounds.

3. PFAS Verification and Monitoring

- 3.1. Prior to commencement of operation, a PFAS Monitoring Program must be prepared by a suitably qualified environmental scientist and implemented for the life of the development.
- 3.2. The program must include monitoring of:
 - 3.2.1. stack emissions;
 - 3.2.2. APCr;
 - 3.2.3. stormwater discharge points;
 - 3.2.4. sediment basins;
 - 3.2.5. receiving waters downstream of the site; and
 - 3.2.6. depositional monitoring locations selected in consultation with Seqwater.

Note: *Packaged monitoring results must be provided **6 monthly** to Seqwater and the Office of the Coordinator-General and must include, as a minimum, PFOS, PFOA, PFHxS, PFBS, Total PFAS and any other PFAS compounds added to the Australian Drinking Water Guidelines.*

Testing must note any exceedances of the Australian Drinking Water Guidelines for the above parameters at the date of monitoring.

4. Drinking Water Catchment Trigger Framework

- 4.1. Prior to operational commencement, the applicant must establish, in consultation with Seqwater, contaminant trigger levels for PFAS compounds, heavy metals, dioxins, furan and other contaminants of concern identified through the approved Human Health Risk Assessment.
- 4.2. Where a trigger level is exceeded, an Incident Investigation Report must be provided to the OCG and Seqwater within 30 business days. The report must identify:
 - 4.2.1. source pathway;
 - 4.2.2. likely cause;
 - 4.2.3. risk to drinking water supplies; and
 - 4.2.4. corrective measures.

5. IBA and IBAA Management

- 5.1. All IBA and IBAA storage, maturation and processing areas must be:
 - 5.1.1. located on impervious surfaces;
 - 5.1.2. drained to purpose-built containment and treatment systems;
 - 5.1.3. isolated from external stormwater flows; and
 - 5.1.4. managed to prevent contaminated runoff entering waterways.
- 5.2. No runoff from IBA or IBAA areas may be discharged from the site unless demonstrated to comply with approved water quality objectives.

6. Stormwater and Surface Water Protection

- 6.1. The development must operate on a nil process wastewater discharge basis.
- 6.2. All stormwater must be captured, contained and treated prior to reuse or lawful disposal if originating from:
 - 6.2.1. waste handling areas;
 - 6.2.2. APCr handling areas;
 - 6.2.3. IBAA processing areas; or
 - 6.2.4. contaminant storage areas
- 6.3. The detention basin collecting contaminated stormwater from the IBA handling and processing catchment, must be:
 - 6.3.1. Regarded as holding processing waste/industrial waste and maintain a zero discharge scenario at all times;
 - 6.3.2. Fully impervious, inspected and maintained as such at all times;
 - 6.3.3. Designed to at least a 1% AEP event runoff volume from the contaminated catchment, with allowances for direct rainfall onto the basin surface, sediment storage, climate change allowances and emergency contingency storage (additional 1m freeboard); and

- 6.3.4. Be pumped out by a licensed waste contractor as needed and well in advance of any weather or other event presenting risk of accidental release, to maintain a minimum 1m freeboard at all times.

Note: All manually collected wastewater removed from the IBA must be contained in a sealed, bunded receptacle until such time as it can be removed from site and disposed of at a registered facility by a licensed waste contractor.

- 6.4. Any accidental or other release from the IBA contaminated surface water collection basin must be reported to Seqwater immediately by phone call to [REDACTED] and by email to [REDACTED].