1.0 APPLICATION DESCRIPTION

Application and property details

Fast-Track project name:	Auckland Surf Park Community Stage 2
Fast-Track application number:	FTAA-2606-1246
Council reference number:	BUN60467823 (LUC60467824 & DIS60467882)

2.0 Technical Specialist Memo – Earthworks & Erosion and Sediment Control

To:	Brooke Dales, Consultant Planner Warwick Pascoe – Principal Project Lead
From:	Fiona Rudsits, Senior Contamination Specialist – Contamination, Air & Noise
Qualifications & Relevant Experience:	I hold the qualification(s) of: Bachelor of Science in Environmental Science and have over 20 years of experience in contaminated land management, resource consenting, and consent compliance monitoring, relevant to contaminated land. I am a full member of Australasian Land & Groundwater Association (ALGA). I have prepared expert evidence and technical assessments for resource consent applications, plan changes, notices of requirement for designation and fast-track applications, and have appeared as an expert witness before consent authorities and the Environment Court on multiple occasions.
Preparation in Accordance with the Code of Conduct:	I confirm that I have read the Environment Court Practice Note 2023 – Code of Conduct for Expert Witnesses (**Code**) and have complied with it in the preparation of this memorandum. I also agree to follow the Code when participating in any subsequent processes, such as expert conferencing, directed by the Panel. I confirm that the opinions I have expressed are within my area of expertise and are my own, except where I have stated that I am relying on the work or evidence of others, which I have specified.
Signature:	

Date: 16 September 2026

3.0 Executive Summary

This memo reviews contaminated land matters associated with the proposed Auckland Surf Park Community Stage 2 development at 1320 and 1350 Dairy Flat Highway, 89 and 105 Lascelles Drive, and 237 and 253 Postman Road, Dairy Flat. The proposal is being considered under the Fast-track Approvals Act 2024 and includes a hyperscale artificial intelligence data centre campus, integrated residential development, village centre, live-work precinct, ancillary infrastructure, subdivision, and associated amendments to the previously approved Stage 1 development.

The purpose of this review was to assess the contaminated land information provided in support of the substantive application and determine whether soil or groundwater contamination presents any significant constraints to the proposed development.

Contaminated land investigations undertaken by Williamson Water & Land Advisory (WWLA) and Aurecon identified only limited contamination concerns across the Stage 2 landholdings. The WWLA PSI/DSI identified a localised area of arsenic-impacted soil associated with former treated timber structures at 1320 Dairy Flat Highway, located within the proposed Solar Farm South Precinct. The contamination is estimated to affect approximately 770 m² of land and approximately 160 m³ of soil requiring remediation. No significant contamination was identified within the Lascelles Drive properties. Aurecon's PSI for the proposed Data Centre 2 site concluded that HAIL activities were highly unlikely to have occurred and did not identify any significant contamination constraints.

Redvale Landfill is located approximately 1.2 km west of the Data Centre 2 site (237 Postman Road). The available investigations do not identify any evidence of landfill migration contamination affecting the site, and the landfill was assessed as unlikely to pose a contamination risk due to the separation distance, engineered containment systems and local geological conditions. No groundwater contamination concerns associated with Redvale Landfill have been identified in the available information.

Overall, I do not consider contaminated land to be a significant constraint to the proposed Stage 2 development. The identified contamination is localised, well defined and easily managed through remediation and implementation of the proposed site management plans. There is no information indicating that contaminated land issues would preclude the proposed development or materially affect its viability. Any remediation, validation and contaminated soil management requirements can be appropriately addressed through the contaminated land consenting process and associated management measures.

4.0 Documents Reviewed

The following documents have been reviewed in preparing this memorandum:

- *Auckland Surf Park Community – Stage 2 Hyperscale Artificial Intelligence Data Centre, Integrated Residential Development, Associated Activities and Variation to Stage 1 Decision,*

1350 Dairy Flat Highway, Dairy Flat, Fast-track Approvals Act 2024 Referral Application prepared by Barker & Associates Limited, dated 12 March 2025

- *Appendix 34: Dairy Flat Campus Preliminary Site Investigation Report – Contaminated Land Management*, Revision 1, prepared by Aurecon New Zealand Limited, dated 1 June 2023 ("Aurecon PSI").
- *Appendix 35: Auckland Surf Park Stage 2 Preliminary and Detailed Site Investigation (Ground Contamination)*, Revision 1, prepared by Williamson Water & Land Advisory Limited (WWLA), dated 30 September 2025 ("WWLA PSI/DSI").
- *Appendix 36: Site Management Plan (Ground Contamination)*, *Auckland Surf Park Stage 2* prepared by WWLA, dated 30 September 2025;
- Appendix 36: *Site Management Plan (Ground Contamination) (Draft), Rev 1*, prepared by Williamson Water & Land Advisory Ltd, dated 30 September 2025 (SMP).
- Appendix 36: *Contaminated Site Management Plan – For Consent Only, Revision A*, prepared by Aurecon New Zealand Limited, dated 1 June 2023 (CSMP)
- *Appendix 61: Stage 2 Land Use, Discharge and Water Permit Conditions*; and
- *Appendix 59: Stage 1 BUN60429155 Conditions* and *Appendix 60: Stage 1 Variations to Conditions*.

5.0 Additional Reasons for Consent Not included in AEE / Incorrect Reasons for Consent

The consents identified in the application adequately address the contaminated land matters identified by the investigations, and I have not identified any additional contaminated land consent requirements. However, the basis for the proposed Chapter E30 contaminant discharge consent is not entirely clear and would benefit from further justification

Spe

6.0 Specialist Assessment

This section summarises potential sources of contamination on site, key investigation findings, soil management requirements, and overall conclusions with respect to the *National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011* (NES:CS) and Chapter E30 of the *Auckland Unitary Plan* (AUP).

The NES:CS applies to activities undertaken on land where a Hazardous Activities and Industries List (HAIL) activity has occurred and primarily regulates soil disturbance, subdivision and changes in land use to ensure risks to human health are appropriately managed. Chapter E30 of the AUP addresses the discharge of contaminants to land, air and water where contaminated land may result in adverse environmental effects.

Contaminated land investigations have been completed for the Stage 2 landholdings by Williamson Water & Land Advisory (WWLA) and Aurecon. These investigations included site history reviews, HAIL assessments, site inspections, soil sampling and laboratory analysis

Contaminated land investigations have been completed for the Stage 2 landholdings by WWLA and Aurecon. These investigations included site history reviews, HAIL assessments, site inspections, soil sampling and laboratory analysis.

The WWLA PSI/DSI identified localised arsenic contamination associated with treated timber structures at 1320 Dairy Flat Highway, which forms part of the proposed Solar Farm South Precinct. Elevated arsenic concentrations were identified in soils surrounding the dwelling and former stockyard areas, exceeding the applicable high-density residential soil contaminant standards set out in the NES:CS for the protection of human health. The affected area is estimated at approximately 770 m^2 and approximately 160 m^3 of soil requiring remediation. No asbestos was identified and no contaminant concentrations exceeded permitted activity discharge criteria set out in Table E30.6.1.4.1 of the AUP. WWLA concluded that the contamination is localised and can be appropriately managed through remediation and implementation of the proposed SMP. Importantly, this was the only area within the Stage 2 landholdings where contamination requiring remediation was identified.

The WWLA SMP specifically focuses on remediation of the arsenic impacted soils within the Solar Farm South Precinct and sets out procedures for excavation, validation sampling, soil reuse or disposal, dust and sediment control, and management of unexpected contamination encountered during earthworks. The SMP also provides a framework for post-remediation validation reporting to demonstrate that the identified contamination has been appropriately managed.

The Aurecon PSI for the proposed Data Centre 2 site at 237 Postman Road concluded that HAIL activities were highly unlikely to have occurred and that no significant contamination constraints were present. Apart from a small historical burn area and recommendations relating to unexpected contamination management, the investigation did not identify contamination requiring remediation or any contaminated land consent triggers.

The accompanying CSMP does not respond to any known contamination but instead provides contingency procedures for management of unexpected contamination, groundwater management, and disposal requirements should contamination be encountered during future construction activities.

The site is located approximately 1.2 km east of Redvale Landfill. The Aurecon PSI considered the landfill as part of the site assessment and concluded that it does not present a likely contamination risk to the development site due to the separation distance, engineered landfill containment systems and local geological conditions. No evidence of landfill derived soil or groundwater contamination affecting the Stage 2 landholdings was identified.

The WWLA PSI/DSI confirmed that resource consent is required under the NES:CS as a restricted discretionary activity for soil disturbance, subdivision and change of land use associated with the contaminated area within the Solar Farm South Precinct. The investigation also concluded that Chapter E30 of the AUP does not apply because contaminant concentrations do not exceed the relevant permitted activity discharge criteria.

Notwithstanding this conclusion, the application seeks a controlled activity consent under Rule E30.4.1(A6) on the basis that disturbance of the identified contaminated soils has the potential to result in contaminant discharges to land during earthworks activities. In practical terms, the E30 consent appears

to provide a mechanism for implementation of the contaminated land management measures contained within the CSMP and for responding to any unexpected contamination that may be encountered during redevelopment.

Overall, I do not consider contaminated land to be a significant constraint to the proposal. The identified contamination is confined to a small, well-defined area within the Solar Farm South Precinct and can be appropriately managed through remediation and implementation of the proposed SMP. No significant contamination concerns were identified elsewhere within the Stage 2 landholdings, including the proposed Data Centre 2 site, and no groundwater contamination concerns were identified in relation to nearby Redvale Landfill. Subject to implementation of the proposed management measures, adverse effects on human health and the environment are expected to be minor.

I therefore support the proposed NES:CS consent pathway for the Solar Farm South Precinct. However, I am not convinced that a separate Chapter E30 contaminant discharge consent is required, given the WWLA PSI/DSI concluded that contaminant concentrations do not exceed the Chapter E30 permitted activity discharge criteria. Further justification should be provided if that consenting pathway is intended to be retained.

In relation to the proposed conditions, Conditions 229-233 apply specifically to the Solar Farm South Precinct and are consistent with the findings of the WWLA PSI/DSI and the WWLA SMP. These conditions provide an appropriate framework for remediation, validation and management of the identified arsenic-impacted soils and reflect the only known contaminated area identified within the Stage 2 development.

However, Conditions 278-282 are linked to the proposed Industrial or Trade Activity discharge permit for Data Centre 2. Given that the Aurecon PSI concluded contamination was unlikely within the Data Centre 2 site and did not identify any contaminated land consent triggers, the basis for applying these contaminated land conditions is unclear. While implementation of the Aurecon CSMP as a precautionary measure is supported, that document primarily provides procedures for management of unexpected contamination and construction-phase contingencies. In my view, these matters would typically be managed through earthworks controls and accidental discovery protocols rather than through an operational industrial discharge consent. Accordingly, the necessity and rationale for Conditions 278-282 should be clarified.

In relation to the Stage 1 s127 variation, which includes an increased surf lagoon, revised solar farm layout and associated masterplan changes, I have not identified any contaminated land matters that would warrant changes to the existing contaminated land management approach or conditions.

7.0 Section 67 Information Gap

The application correctly identifies the requirement for resource consent under Regulation 10 of the NES:CS in relation to the contamination identified at 1320 Dairy Flat Highway (Solar Farm South Precinct). The WWLA PSI/DSI confirms that arsenic concentrations exceed the applicable soil contaminant standards for protection of human health under the NES:CS for the proposed high-density residential land use in two locations. As a result, resource consent is required for soil disturbance, subdivision and change of land use as a restricted discretionary activity. The investigation concludes that the contamination is localised, affecting approximately 770 m^2 (approximately 160 m^3 of soil), and can be appropriately managed through remediation and implementation of the WWLA SMP.

The Aurecon PSI for the proposed Data Centre 2 site at 237 Postman Road concluded that HAIL activities were highly unlikely to have occurred and did not identify any contamination requiring remediation or any contaminated land consent triggers. While the Aurecon CSMP has been prepared as a precautionary measure to manage unexpected contamination, groundwater management and soil disposal requirements during construction, it was not prepared in response to any known contamination issues.

The application also seeks a contaminated land discharge consent under Rule E30.4.1(A6) of the AUP on the basis that the proposal involves the potential discharge of contaminants to land that does not meet Standard E30.6.1.2 but is considered to meet Standard E30.6.2.1.

However, the justification for this consent pathway is not clear given contaminant concentrations do not exceed the Chapter E30 permitted activity soil acceptance discharge criteria.

In my view, continuing to seek a separate E30 consent risks overstating the significance of the contamination issues when the investigations indicate only limited contamination requiring small-scale remediation. The E30 consent appears to be largely precautionary in nature and directed toward management of potential or unexpected contamination rather than any known contaminant discharge that exceeds the applicable AUP thresholds.

In response to Section 67 matters (dated 14 September 2026), the applicant agreed and confirmed *Contaminated land is not considered to be a significant constraint to the proposal. It is agreed that a NES-CS consent is required for disturbance, subdivision and change of use based on contamination identified at 1320 Dairy Flat Highway, however, a separate AUP Chapter E30 contaminant discharge consent it is not considered necessary.*"

8.0 Recommendation

Overall, I do not consider contaminated land to be a significant constraint to the proposal. The identified contamination is confined to a localised area within the Solar Farm South Precinct, is well-defined through the PSI/DSI investigation, and can be appropriately managed through remediation and implementation of the proposed SMP.

I support the proposed NES:CS consent pathway for the identified contamination and agree there is no requirement for E30 contaminant discharge consent, given the WWLA PSI/DSI concluded that contaminant concentrations do not exceed the E30 permitted activity discharge criteria.

9.0 Proposed Conditions

The contaminated land conditions proposed by the applicant generally reflect the findings and recommendations of the supporting contaminated land investigations and management plans.

Table 1 below contains the contaminated land related conditions proposed by the applicant (specifically Conditions 229-233 within Appendix 61) that relate to the remediation and management of the identified arsenic-impacted soils within the Solar Farm South Precinct.

I broadly support the wording of Conditions 229-233 and consider that they provide an appropriate framework for management, remediation, validation and reporting of the identified arsenic impacted soils

within the Solar Farm South Precinct. These conditions are consistent with the recommendations of the WWLA PSI/DSI and the associated SMP.

As a separate contaminated land discharge consent under E30 is no longer being sought, as confirmed in the s67 response, Conditions 278-282, in Table 1 of this memo, could be removed or alternatively incorporated into LUC60467824. This would provide an appropriate mechanism for implementing the Aurecon CSMP, during earthworks to manage contaminated soils, if encountered.

Conditions 278-282 are currently attached to the proposed Industrial or Trade Activity discharge permit for Data Centre 2. While implementation of the Aurecon CSMP as a precautionary measure is supported, management of unexpected contamination encountered during earthworks would, in my view, be more appropriately addressed through construction phase management plans, accidental discovery protocols, and earthworks related consent conditions, rather than through an operational Industrial or Trade Activity discharge consent.

Accordingly, if Conditions 278-282 are to be retained, they would be more appropriately placed under LUC60467824.

9.1 Duration of consent

The applicant originally proposed a 15-year duration for the contaminated land discharge consent. As this consent is no longer being sought, the proposed duration is no longer relevant. No expiry period applies to the NES:CS consent.

Table 1 – Applicants Proposed Consent Conditions (Appendix 5) relevant to contaminated land.

Condition	Proposed Conditions	Comment or suggestion
(229)	During any earthworks on the Solar Farm South Precinct (refer Figure 1 of Condition (234)), the Consent Holder must implement all measures identified in the 'Site Management Plan' prepared by Williamson Water and Land Advisory, referenced in Condition (1). Any substantial revisions to the CSMP must be provided to the Council for certification prior to the implementation of the relevant revised management protocols.	*I agree with this condition*
(230)	The Consent Holder must engage a suitably qualified and experienced soil contamination practitioner to oversee the implementation of the CSMP required by Condition (229),	*I agree with this condition*

	including any monitoring of earthworks.	
(231)	Where excavated material within the Solar Farm South Precinct is not suitable for reuse on the site due to soil contamination, the Consent Holder must ensure the material is disposed of at an appropriate landfill or site authorised to accept the levels of contamination identified, Evidence of the locations where excavated material has been disposed of must be retained by the consent holder during the works and made available to the council on request. ~~and provide landfill receipts to the Council on completion of the earthworks~~.	*I recommend updating this condition to allow excavated material that is suitable for reuse to be sent to another authorised site, as this is a preferable option to disposing of all material at a landfill.*
(232)	In the event of the discovery of contamination during earthworks that has not been previously identified within the Solar Farm South Precinct, the Consent Holder must immediately cease the works in the vicinity of the contamination, notify the Council, and engage a suitably qualified and experienced soil contamination practitioner to assess the situation (including possible sampling and testing) and amend and submit an updated CSMP for certification. The consent holder must adhere with the amended CSMP.	*I agree with the condition*
(233)	Within three months of the completion of remediation and soil disturbance within the Solar Farm South Precinct, a SVR must be submitted to the Council for certification. The SVR must be prepared by a SQEP in accordance with the Contaminated Land Management Guidelines, No. 1: Reporting on Contaminated Sites in New Zealand (Ministry for the Environment, 2021) and contain sufficient detail to address the following matters: (a) A summary of the pre remediation delineation field screening surveys and results from around the margins of	*Minor amendments recommended*

	the identified contamination within the site. (b) A summary of the remediation and soil disturbance undertaken, including the location and dimensions of the excavations carried out and the volume of soil excavated (c) Details and results of validation sampling undertaken and interpretation of the results in the context of the NES:CS and the AUP~~(OP)~~ (d) Records/evidence of the appropriate disposal for any material removed from the site (e) Details of any validation sampling undertaken on materials re-used or imported to site (f) Records of any unexpected contamination encountered during the works and response actions, if applicable (g) Details on the geotextile barrier/capping/planting/management of contaminated soil remaining on site within the Contaminated Soil Management Areas (if required). (a) Conditions of the final site ground surface (b) Ongoing mitigation or monitoring measures to protect human health and/or the environment (c) Reports of any complaints, health and safety incidents related to contamination, and/or contingency events during the earthworks (d) A statement certifying that all works have been carried out in accordance with the requirements of approved plans and consent conditions, otherwise providing details of relevant breaches, if applicable.	
(278)	s15 Discharge Permit for an Industrial or Trade Activity	*It is recommended that this be*

	Contamination During earthworks on the site, the Consent Holder must implement all measures identified in Contamination Site Management Plan (CSMP) prepared by Aurecon, dated 1 June 2023. Any substantial revisions to the CSMP must be provided to the Council for certification prior to the implementation of the relevant revised management protocols. breaches, if applicable.	*included as an advice note or proffered under LUC60467824, with minor amendments.*
(279)	The Consent Holder must engage a suitably qualified and experienced soil contamination practitioner to oversee the implementation of the CSMP required by Condition (278), including any monitoring of earthworks.	*Can be removed as included in Condition (230)*
(280)	Where excavated material is not suitable for reuse on the site due to soil contamination, the Consent Holder must ensure the material is disposed of at an appropriate landfill ~~and provide landfill receipts to the Council on completion of the earthworks.~~ or site authorised to accept the levels of contamination identified, Evidence of the locations where excavated material has been disposed of must be retained by the consent holder during the works and made available to the council on request.	*Can be removed as included in Condition (231)*
(281)	In the event of the discovery of contamination during earthworks that has not been previously identified, the Consent Holder must immediately cease the works in the vicinity of the contamination, notify the Council, and engage a suitably qualified and experienced soil contamination practitioner to assess the situation (including possible sampling and testing) and amend and submit an updated ~~Contamination Site Management Plan~~ CSMP for certification. The consent holder must adhere with the amended	*Can be removed as included in Condition (232)*

	~~Contamination Site Management Plan~~ CSMP	
(282)	Where Condition (281) is enacted, within three months of the completion of remediation and soil disturbance on the site, a SVR must be submitted to the Council for certification. The SVR must be prepared by a SQEP in accordance with the Contaminated Land Management Guidelines, No. 1: Reporting on Contaminated Sites in New Zealand (Ministry for the Environment, 2021) and contain sufficient detail to address the following matters: (a) A summary of the pre remediation delineation field screening surveys and results from around the margins of the identified contamination within the site; (b) A summary of the remediation and soil disturbance undertaken, including the location and dimensions of the excavations carried out and the volume of soil excavated; (c) Details and results of validation sampling undertaken and interpretation of the results in the context of the NES:CS and the AUP~~(OP)~~; (d) Records/evidence of the appropriate disposal for any material removed from the site; (e) Details of any validation sampling undertaken on materials re-used or imported to site; (f) Records of any unexpected contamination encountered during the works and response actions, if applicable; (g) Details on the geotextile barrier/capping/planting/management of contaminated soil remaining on site within the Contaminated Soil Management Areas (if required); (h) Conditions of the final site ground surface; (i) Ongoing mitigation or monitoring measures to protect	*Can be removed as included in Condition (233)*

	human health and/or the environment; (j) Reports of any complaints, health and safety incidents related to contamination, and/or contingency events during the earthworks; and (k) A statement certifying that all works have been carried out in accordance with the requirements of approved plans and consent conditions, otherwise providing details of relevant	