



28th April 2020

The Planning Secretary
Department of Planning, Industry & Environment
320 Pitt Street
Sydney, NSW 2000

Attention: Megan Fu
Project: Nihon University Newcastle Campus - SSD 9787
Re: Conditions of Consent A18 and A19

Dear Megan,


Reference is made to SSD 9787 Conditions of Consent A18 and A19 in relation to the Site Contamination requirements for the development.

Please find attached the following documents that address the additional site investigations following demolition the finalised RAP for the site incorporating the additional site investigation information and the endorsement by the accredited site auditor:

- Report on the Detailed Site Investigation - Nihon University 9 Church Street Newcastle - prepared by Douglas Partners April 2020,
- Remediation Action Plan - Nihon University 9 Church Street Newcastle - prepared by Douglas Partners April 2020,
- Draft Long Term Management Plan - Nihon University 9 Church Street Newcastle - prepared by Douglas Partners March 2020,
- GHD [accredited site auditor] Interim Advice #3 dated 7th April 2020 addressing the review of additional investigations and revised RAP
- GHD [accredited site auditor] Interim Advice #4 dated 28th April 2020 addressing the review of revised DSI and RAP.

Should you require further clarification on the information contained in the site investigation report, the RAP and the endorsement by the accredited site auditor, please feel free to contact either Katherine Daunt or Edward Clode at dwp Australia Pty.

Yours sincerely,



Edward Clode
Design Director
Registered Architect – NSW ARBN 4100
Email: edward.c@dwp.com
File: 17-0347_A-d01-20_let
Encl.: GHD interim advice #4,
GHD interim advice #3
Douglas Partners draft SMP,
Douglas Partners RAP
Douglas Partners additional site investigations



28 April 2020

Katherine Daunt
Design Director
dwp Australia Pty Ltd
16 Telford Street
Newcastle NSW 2300

Our ref: 12519246
Your ref: SSD-9787

c.c. Sita Vasanthakumar, Robert McLaughlin, Ben Moss, Olivia Ryan, Jack Garland (Built P/L)

Dear Katherine

**Newcastle Courthouse Redevelopment - Nihon University - Site Audit 0088_IDG
SSD Consent Matrix Items A18 and A19 Site Contamination
Interim Advice #4 – Review of revised DSI and RAP**

I refer to my previous Interim Advice #3 dated 7 April 2020, which documents my detailed review of the following reports:

- Douglas Partners 2020a, *Report on Detailed Site Investigation – Pre-Demolition, Proposed Nihon University, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 3 March 2020. [Pre-Demolition DSI]
- Douglas Partners 2020b, *Report on Detailed Site Investigation, Proposed Nihon University, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 20 March 2020. [DSI]
- Douglas Partners 2020c, *Remediation Action Plan, Proposed Nihon University, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 24 March 2020. [RAP]
- Douglas Partners 2020d, *Long-term Site Management Plan, Proposed Nihon University, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 26 March 2020. [LTSMP]

The DSI (Douglas Partners 2020b) and RAP (Douglas Partners 2020c) have subsequently been revised, based on the comments and recommendations provided in my Interim Advice #3. I have now reviewed the revised documents, which are as follows:

- Douglas Partners 2020e, *Report on Detailed Site Investigation, Proposed Nihon University, 9 Church Street, Newcastle*, Revision 2, Douglas Partners Pty Ltd, 23 April 2020.
- Douglas Partners 2020f, *Remediation Action Plan, Proposed Nihon University, 9 Church Street, Newcastle*, Revision 1, Douglas Partners Pty Ltd, 23 April 2020.

I confirm that the revised documents listed above have satisfactorily addressed my comments and recommendations provided in Interim Advice #3, and thus form an appropriate basis with which to proceed with the remediation and validation of the site.

The following points are consistent with the RAP, but are noted for avoidance of doubt regarding the requirements of the RAP during its implementation:

1. The additional measures 'recommended' in Section 7.1 of the RAP, being a high visibility marker layer and preparation of a long term Site Management Plan (SMP) are requirements, not options.

2. The respective marker layer materials (geofabric except that plastic sheeting may be used beneath concrete slabs / pavements) nominated in the RAP are considered appropriate. As the existing Court House building will not be disturbed, and the likelihood of contaminated soil being present beneath this building is low, a marker layer is not required under this building.
3. The RAP suggests a minimum capping of 300 mm for landscape areas with general ground cover (i.e. shallow root system), with increased capping thickness where deep rooted vegetation is proposed, and states advice should be sought from the landscape designers regarding the required thickness of capping to support the root zone for vegetation within landscape areas. The Auditor considers validation of landscape areas as per Section 10.1 Step 6 of the RAP is the preferred remediation option for such areas. Where capping is used instead (in accordance with the provisions of the RAP), confirmation from the landscape designers will be required regarding the thickness necessary to support the root zone, including consideration of whether roots may penetrate the marker layer, such as in situations as shown in the 'Mass Planting – Typical' detail 5 on Moir Landscape Architecture drawing LP13 G provided in Appendix B of the RAP, as well as for larger plantings. Use of a marker layer may also require modification to the Moir Section B: Planting Specification, in particular Section 3.1 preparation of subgrades.

Please note that this communication has been provided as Interim Advice only, as part of the audit process. The advice does not constitute a site audit report or site audit statement under the provisions of the CLM Act, and does not pre-empt the conclusions, which will be drawn at the end of the audit process. A site audit report and site audit statement will be issued when the audit process has been completed.

This Interim Advice relates solely to the contamination at the site, and is not intended to provide any opinions regarding the compliance or status of other aspects of the proposed site redevelopment.

The opinions and recommendations offered in this Interim Advice are subject to the attached Limitations.

I trust this Interim Advice is sufficient for your current purposes. Please contact me if you wish to discuss anything further.

Sincerely
GHD



Ian Gregson

Principal Environmental Consultant, NSW EPA Accredited Site Auditor, Accreditation No. 0101
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Attachments Limitations to Interim Advice

Limitations to Interim Advice

This Interim Advice has been prepared as part of a site audit undertaken in accordance with relevant provisions of Part 4 of the Contaminated Land Management (CLM) Act 1997.

This Interim Advice:

1. has been prepared by Ian Gregson and members of his support team as indicated in the appropriate sections of this Interim Advice ("GHD") for dwp and Azusa Sekkei;
2. may be used and relied on by dwp and Azusa Sekkei;
3. may be used by and provided to the EPA and the relevant planning authorities for the purpose of meeting statutory obligations in accordance with the relevant sections of the CLM Act 1997 or the Environment Planning and Assessment (EP&A) Act 1979;
4. may be provided to other third parties but such third parties' use of or reliance on the Interim Advice is at their sole risk, as this Interim Advice must not be relied on by any person other than those listed in 1-3 above without the prior written consent of GHD; and
5. may only be used for the purpose as stated in **Section** Error! Reference source not found. of the Interim Advice (and must not be used for any other purpose).

GHD and its servants, employees and officers (including the Auditor) otherwise expressly disclaim responsibility to any person other than dwp and Azusa Sekkei arising from or in connection with this Interim Advice.

Whereas these current opinions and recommendations have been provided as interim guidance to assist in the assessment and management of contamination issues at the site, this guidance should not be regarded as "approval" of any proposed investigations or remedial activities, as such approval is beyond the scope of an independent review. The NSW EPA *Guidelines for the NSW Site Auditor Scheme* (2017) contains a description of the site assessment and audit process, which includes the following:

- A site audit is the second in two tiers of work in the site assessment and remediation process.
- The **'first tier' is the work of a contaminated site consultant**, generally engaged by the site owner or developer. The contaminated site consultant designs and conducts a site assessment and any necessary remediation and validation, and documents the processes and information in reports; and
- The **'second tier' is the site audit** which involves a site auditor independently and at arm's length reviewing, for one of the audit purposes stated in the CLM Act, the consultant's assessment, remediation and validation plans or reports. The material outcomes of a site audit are a site audit report and site audit statement.

The purpose of the auditor's review is to assess whether the works undertaken (or proposed to be undertaken) comply with current regulations, standards and guidelines, and that the site has been assessed, remediated and validated to a standard appropriate for the proposed land use. In the first instance, the contaminated land consultant should be satisfied that the work to be conducted conforms to all appropriate regulations, standards and guidelines; and is appropriate, based on the site's historical land use, physical characteristics and proposed land use.

This interim review and advice do not constitute an audit under the provisions of the Contaminated Land Management (CLM) Act 1997, and do not pre-empt the conclusions which will be drawn at the end of the audit process. A site audit report and site audit statement will be issued when the audit process has been completed.

It is the nature of contaminated site investigations that the degree of variability in site conditions cannot be completely known and no sampling and analysis program can eliminate all uncertainty concerning the condition of the site. Professional judgement must be exercised in the collection and interpretation of the data. In the conduct of

this review, in particular, reliance has been placed on data provided in the various site investigation and assessment reports. The Auditor is unable to provide certification outside of areas over which he had some control or is reasonably able to check, and does not accept responsibility for inaccuracies in information provided for review as part of this Audit.

To the maximum extent permitted by law, all implied warranties and conditions in relation to the services provided by GHD and the Interim Advice are excluded unless they are expressly stated to apply in this Interim Advice.

The services undertaken by the Auditor, his team and GHD in connection with preparing this Interim Advice were undertaken in accordance with current profession practice and by reference to relevant guidelines made or approved by the EPA under Section 105 of the CLM Act 1997.

The opinions, conclusions and any recommendations in this Interim Advice are based on assumptions made by the Auditor, his team and GHD when undertaking services and preparing the Interim Advice ("Assumptions"), as specified throughout this Interim Advice. GHD and the Auditor expressly disclaim responsibility for any error in, or omission from, this Interim Advice arising from or in connection with any of the Assumptions being incorrect.

Subject to the paragraphs in this section of the Interim Advice, the opinions, conclusions and any recommendations in this Interim Advice are based on conditions encountered and information reviewed at the time of preparation of this Interim Advice and are relevant until such times as the site conditions or relevant legislations changes, at which time, GHD expressly disclaims responsibility for any error in, or omission from, this Interim Advice arising from or in connection with those opinions, conclusions and any recommendations.

The Auditor and GHD have prepared this Interim Advice on the basis of information provided by the client, their consultants and others who provided information to GHD (including Government authorities), which the Auditor and GHD have not independently verified or checked ("Unverified Information") beyond the agreed scope of work.

The Auditor and GHD expressly disclaim responsibility in connection with the Unverified Information, including (but not limited to) errors in, or omissions from, the Interim Advice, which were caused or contributed to by errors in, or omissions from, the Unverified Information.

The opinions, conclusions and any recommendations in this Interim Advice are based on information obtained from, and testing undertaken at or in connection with, specific sampling points and may not fully represent the conditions that may be encountered across the site at other than these locations. Site conditions at other parts of the site may be different from the site conditions found at the specific sampling points.

Although reasonable care has been used to assess the extent to which the data collected from site is representative of the overall site condition and its beneficial uses, investigations undertaken in respect of this Interim Advice are constrained by the particular site conditions as discussed in this Interim Advice. As a result, not all relevant site features and conditions may have been identified in this Interim Advice.

Site conditions (including any the presence of hazardous substances and/or site contamination) may change after the date of this Interim Advice. The Auditor and GHD expressly disclaim responsibility:

- Arising from, or in connection with, any change to the site conditions;
- To update this Interim Advice if the site conditions change.

These Disclaimers should be read in conjunction with the entire Interim Advice and no excerpts are taken to be representative of the findings of this Interim Advice. This Interim Advice should not be altered, amended or abbreviated, issued in part or issued incomplete in any way without prior checking and approval by GHD.



7 April 2020

Katherine Daunt
Design Director
dwp Australia Pty Ltd
16 Telford Street
Newcastle NSW 2300

Our ref: 12519246
Your ref: SSD-9787

c.c. Sita Vasanthakumar, Robert McLaughlin, Ben Moss, Olivia Ryan, Jack Garland (Built P/L)

Dear Katherine

**Newcastle Courthouse Redevelopment - Nihon University - Site Audit
SSD Consent Matrix Items A18 and A19 Site Contamination
Interim Advice #3 – Review of additional investigations and revised RAP**

1 Introduction

Ian Gregson (the undersigned) of GHD has been engaged to undertake a site audit under the provisions of the Contaminated Land Management Act (CLM Act) 1997 in relation to assessment and remediation of contamination at the proposed Nihon University site (former Newcastle Courthouse), located at 9 Church Street Newcastle (the site) and identified as Lot 1 DP 1199904.

The purpose of this Interim Advice is to provide the Auditor's opinion on whether the additional investigations and revision of the Remediation Action Plan (RAP) have adequately addressed the recommendations of previous Interim Advice, and are appropriate to make the site suitable for the proposed land use. The reports which are the subject of this Interim Advice are as follows:

- Douglas Partners 2020a, *Report on Detailed Site Investigation – Pre-Demolition, Proposed Nihon University, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 3 March 2020. [Pre-Demolition DSI]
- Douglas Partners 2020b, *Report on Detailed Site Investigation, Proposed Nihon University, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 20 March 2020. [DSI]
- Douglas Partners 2020c, *Remediation Action Plan, Proposed Nihon University, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 24 March 2020. [RAP]
- Douglas Partners 2020d, *Long-term Site Management Plan, Proposed Nihon University, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 26 March 2020. [LTSMP]

Site inspections and reports that have previously been reviewed as part of this site audit (and which were the basis of previous Interim Advice) are listed in **Attachment A** to this Interim Advice.

Please note that this communication has been provided as Interim Advice only, as part of the audit process. The advice does not constitute a site audit report or site audit statement under the provisions of the CLM Act, and does not pre-empt the conclusions, which will be drawn at the end of the audit process. A site audit report and site audit statement will be issued when the audit process has been completed.

This Interim Advice relates solely to the contamination at the site, and is not intended to provide any opinions regarding the compliance or status of other aspects of the proposed site redevelopment.

The opinions and recommendations offered in this Interim Advice are subject to the attached Limitations.

2 Statutory requirements

SSD 9787 consent conditions which this Interim Advice is intended to address are as follows:

- A18 Following the completion of demolition works and prior to the commencement of all other construction, additional site investigations of previously untested or inaccessible areas of the site must be undertaken in accordance with:
- (a) interim advice dated 12 November 2019 and prepared by NSW EPA Accredited Site Auditor Ian Gregson, Principal Environmental Consultant, GHD;
 - (b) the recommendations provided in the Phase 1 Environmental Site Assessment – Technical Note dated 29 April 2019 and prepared by Cardno;
 - (c) NSW EPA Sampling Design Guidelines;
 - (d) Guidelines for the NSW Site Auditor Scheme (3rd edition) 2017;
 - (e) Guidelines for Consultants Reporting on Contaminated Sites, 2011;
 - (f) The National Environment Protection (assessment of contamination) Measures 2013 as amended; and
 - (g) testing must include assessment of both the soil and groundwater profile.
- A19 The additional site investigations report must be reviewed by a NSW EPA Accredited Site Auditor and the Conceptual Remediation Action Plan dated 28 May 2019, prepared by Cardno must be updated to reflect the findings of the additional site investigations required by condition A18. The updated remediation action plan must be approved by a NSW EPA Accredited Site Auditor and submitted to the Planning Secretary prior to the commencement of remediation works.

In addition to the above, the draft LTSMP has been reviewed against the requirements of condition E32 (which applies prior to issue of an occupation certificate or commencement of operation), as follows:

- E32 The Applicant must prepare a Long Term Environmental Management Plan (LTEMP), where identified as required by the remediation action plan approved by a NSW EPA Accredited Site Auditor pursuant to condition A19, and submit a copy to the Planning Secretary. The plan must:
- (a) be prepared by a certified Contaminated Land Consultant;
 - (b) be submitted to the Planning Secretary within one month of the completion of remediation works, unless otherwise agreed by the Planning Secretary; and
 - (c) include, but not be limited to:
 - (i) a description of the nature and location of any contamination remaining on site;
 - (ii) provisions to manage and monitor any remaining contamination, including details of any restrictions placed on the land to prevent development over the containment cell;
 - (iii) a description of the procedures for managing any leachate generated from the containment cell, including any requirements for testing, pumping, treatment and/or disposal;
 - (iv) a description of the procedures for monitoring the integrity of the containment cell;
 - (v) a surface and groundwater monitoring program;

- (vi) mechanisms to report results to relevant agencies;
- (vii) triggers that would indicate if further remediation is required; and
- (viii) details of any contingency measures that the Applicant is to carry out to address any ongoing contamination.

3 Review methodology

I have reviewed the available contamination assessment and management reports in the context of guidelines made or approved by the NSW EPA under the provisions of the CLM Act, including the following:

- NEPC 2013, *National Environment Management (Assessment of Site Contamination) Measure 1999*
- NSW EPA 1995, *Sampling Design Guidelines*
- NSW EPA 2017, *Guidelines for the NSW Site Auditor Scheme*
- NSW OEH 2011, *Guidelines for Consultants Reporting on Contaminated Sites*¹
- NSW EPA 2019, *Assessment and management of hazardous ground gases*

My opinion on whether the proposed approach regarding contamination is appropriate for the site, and whether the site can be made suitable for the proposed use is based on the above guidelines with consideration of the following factors primarily influencing these opinions:

- What is the scope of investigations that has been carried out to date?
- Is the information considered reliable and consistent with relevant guidelines?
- Is the information sufficient to predict the likely remediation requirements?
- Does the RAP demonstrate an appropriate remediation approach based on the contamination issues likely to be present at the site?
- Does the RAP incorporate sufficient methodology to address current uncertainties and data gaps?

4 Review comments

Generally the documents are well presented and in accordance with relevant guidelines. I consider the findings and management approach are generally appropriate and the additional investigations have addressed the requirements of my previous Interim Advice. However, based on my 18 March 2020 site inspection and subsequent discussions with Douglas Partners, I consider some further documentation of site conditions, particularly with regard to the presence of asbestos, and some further assessment of contaminant concentrations is required in the DSI. This will flow on to the RAP and (ultimately, after completion of remediation) to the LTSMP. Specific comments are provided below, which should be taken into account in updating the reports. Notwithstanding, I do not consider these comments will materially change the remediation approach, and I consider the RAP as reviewed is sufficient to meet the requirements of Condition A19 provided the recommendations in this Interim Advice are taken into account during implementation of the RAP.

¹ The Auditor notes that the *Contaminated land guidelines: Consultants reporting on contaminated land* (NSW EPA 2020) has recently been gazetted and is now in force; however the EPA has advised that reports that are substantially complete at this time are not required to be updated based on the new guidelines.

4.1 DSI

As noted in the DSI (Douglas Partners 2020b), this report supersedes (and incorporates the findings of) the Pre-Demolition DSI (Douglas Partners 2020a). Comments on the DSI are as follows:

1. s.7 Site Condition – further details of observations and site conditions post demolition should be provided, particularly regarding the incidence, nature and frequency of ACM encountered on the site, and what actions were undertaken by the contractor in relation to any ACM encountered. This should include discussion of ACM remaining on structures, and whether any clearances were issued for areas where ACM was removed as part of the demolition or from subsurface structures. Discussion should also consider whether (and to what extent) ACM contamination was pre-existing or due to demolition.
2. s.7 Site Condition p.18 – the DSI notes that further inspections of the Supreme Court building footprint are proposed following demolition. I consider this can be documented in the validation report
3. s.8 Conceptual Site Model – I consider this a Preliminary CSM, which should be further presented as an updated CSM after presentation of the DSI results and assessment of contamination (eg. in / after s.15), including a column for actual risk to receptors, based on the DSI findings (eg. if a potential source does not present any unacceptable risk, based on the DSI findings). This would then provide a basis for a reduced CSM in the RAP, indicating which sources / contaminants require management or remediation.
4. s.9.1.2 states the frequency of testing was adopted to meet NSW EPA sampling guideline requirements for characterisation of the site. (See also s.11.1 Steps 3 and 7). Discussion is required as to whether systematic coverage has been achieved, or what the likely variability is in areas that have not been sampled, and how this will be addressed. (eg. by further inspections, and/or by the remediation strategy including unexpected finds protocol).
5. S.9.2, 7th bullet point – clarify whether the two material samples were the only ones encountered, whether one was from a test pit and one was from the ground surface etc. Please also provide details of soil sampling for asbestos (eg. separate containers? Sample size?).
6. s.10 – please provide further detail on the frequency, abundance and nature of ACM encountered. s10.1 notes that abundant fibre cement sheeting fragments were encountered in Pit 307 –was this subsequently removed for disposal? The report also notes (in Table 4) that Pit 302 beneath building had ACM at 0.09 – 0.8 m deep. A clear discussion of occurrence of ACM is required as a basis for qualitative assessment of risk and management requirements. Supporting photographs would be useful if available.
7. s.10 / s.15 – please also include discussion of the stockpile tested, and whether results were consistent with investigations across the rest of the site.
8. s10.3 first line – Table 4 shows more than Bores 201 to 203.
9. s.10.4 – there is a note ⁽²⁾ missing from Table 7.
10. s.14 / s.15 / s.17 – Assessment criteria should include consideration of aesthetics, as per NEPC (2013), and discussion of findings in that regard.
11. s.14.1.3 – consideration should be given to CRC CARE Technical Report 39 for ESLs for Benzo(a)pyrene.

12. s14.1.5 para 2 – the post-demolition component of the DSI is now complete. At least a qualitative assessment of asbestos should be included, as noted above. A conservative management approach (eg. as per section 4.9 of NEPC 2013 Schedule B1) may be adopted to address uncertainties.
13. s.14.3 – the current guidelines are EPA 2019. Paragraph 4 and Table 19 refer to EPA 2012.
14. s.15 – more detailed assessment of contaminants exceeding investigation or screening levels should be undertaken, as indicated in the DQOs. A statistical summary of these contaminants should be presented (eg. range, exceedences, average, 95% UCLav, standard deviation). Brief review of the soil results suggests there are no “hot spots” for lead or BaP TEQ, and the 95% UCLav concentrations are below the HIL B. Some discussion of the occurrence of BaP TEQ exceedences in natural soil is warranted. Reference may be made to Schedule B7, Appendix A2 of NEPC 2013 if a further line of evidence is required in relation to aged vs freshly spiked soils (eg. if the standard deviation exceeds 50% of the HIL B, a higher investigation level may be justifiable for aged PAHs). Pending presentation and assessment of this information, chemical contaminants may not actually require remediation or management at the site, for it to be suitable for the proposed land use.
15. s.15 – specific comment should be made on the results of asbestos in soils analysis (eg. number of samples, whether any asbestos was detected). Please include discussion of whether (on this basis) assessment can be based on ACM (eg. as per WA DoH guidelines and section 4.10 of NEPC 2013 Schedule B1).
16. s.15 / s.17 - comment should be provided on the sampling pattern that was able to be achieved, whether soils across the rest of the site are expected to be similar, and how any uncertainties will be addressed.
17. s.17 – please update where relevant, taking above comments into account.
18. An executive summary should be provided, to be in accordance with OEH 2011 reporting guidelines.

4.2 RAP

As noted in s.1, this RAP supersedes the cRAP prepared by Cardno (Cardno 2019), and should therefore be a stand-alone document. Review and comments on the adequacy of the RAP are presented in Table 1 and Table 2 in **Attachment B**. Key comments from review, and recommendations for issues that need to be further addressed are listed below.

19. s.3.2 p.3 refers to “figures below”, but none are apparent. The RAP should reflect comments on the DSI relating to post-demolition description, including incidence of asbestos, whether it is being removed etc.
20. s.3.3 – cross sections should be provided illustrating capping details (including landscaping), stormwater easement marker layer and backfill etc.
21. s.4 p.8 – first paragraph notes that the proposed development will reduce the risk of infiltration and migration (which is valid); however I would expect the DSI to find (and the RAP to reflect) that this risk is already low.
22. s.4.8 p.8 – second paragraph – may need updating based on statistical assessment of chemical contaminants as per DSI comments, subject also to qualitative assessment of ACM.
23. s.5 – the CSM should be updated as per comments on the DSI, and paragraph 2 may need updating as above.

24. The RAP should specifically discuss the extent of remediation required. (This is implied, but not specifically discussed). See also comment below, for considerations regarding the basis of this extent.
25. s.6 – the RAP adopts a conservative approach, which is considered appropriate, particularly as the nature of the proposed development lends itself to capping of site soils. Given comments above on the DSI, I consider it likely that more detailed assessment of chemical contaminants will indicate (on a statistical basis in accordance with NEPC 2013) they do not actually exceed HIL B investigation/screening levels; potentially including qualitative assessment of asbestos (although this will also depend on whether asbestos encountered will be removed and adequate asbestos clearance provided). If this is the case a conservative approach can still be applied, but serves to further reduce risk, rather than being necessary for suitability. An asbestos management plan (AMP) and register will likely still be required by WHS legislation.
26. s.6 para 3 – I suggest the central Court House building may be unlikely to have contamination beneath it, based on the date of its construction (but at any rate soils beneath will be effectively capped, as noted in the RAP).
27. Sections 6 and 10 should give further consideration to NEPC 2013 Schedule B1 recommendations in relation to asbestos, in particular:
- Section 4.3 (last paragraph) of Schedule B1, that if visible asbestos is present and may be disturbed during work activities, it must be removed.
 - Section 4.11 of Schedule B1, that either a Tier 2 analysis should be carried out or a conservative management response implemented; and remediation options which minimise soil disturbance and therefore public risk are preferred, with management of asbestos in situ being encouraged.
28. s.6 para 6 notes that on-site treatment and re-use of materials could be considered a contingency – this seems unlikely given time constraints to the development.
29. Sections 7.1, 10 – 0.3 m of soil for capping may not be sufficient to provide for landscaping – this should be confirmed with the landscape architect (as noted in s.10 of the RAP), and sufficient soil allowed for the required rooting depth or alternatively the landscaped areas being validated as suitable without capping.
30. Sections 7.2, 10.5, 11.5 - I recommend confirmatory samples of imported material be collected and analysed unless the supplier can provide analytical results directly representative of the material in question. Material should be inspected on import to confirm it is consistent with the expected properties.
31. s.7.2 – CRC CARE technical report 39 should be considered in relation to EILs for benzo(a)pyrene. Criteria for OCPs should also be included in Table 2. Site specific soil parameters may allow less conservative EILs to be applied for some metals.
32. s.9 – p18 para 2 – there is already a development consent for the project, which should be referred to, with conditions relevant to remediation and management of site contamination. Para 3, last point – why is dewatering expected for the development? Para 4, last point – regulatory requirements in relation to asbestos management should be discussed.
33. s.10 – p.20 item 13 and p.21 item 3 – high visibility geofabric should be orange.
34. s.12.4 – reporting should also be with reference to EPA 2017 *Guidelines for the NSW Site Auditor Scheme*, including specific requirements for documentation of disposal and imported materials.

4.3 Draft LTSMP

I consider the draft LTSMP is appropriate at this time and can remain draft until completion of the site validation works. The following comments should be taken into account when updating the LTSMP following validation. As noted in Attachment C, any updated guidelines in place at the time of finalising the LTSMP should also be taken into account.

35. The final LTSMP should be reviewed and agreed to by Nihon University, as they will be responsible for its implementation.
36. For usability, the LTSMP should have a document status page and table of contents.
37. The introduction should include the consent requirement for implementation of the LTSMP, as well as other regulatory requirements (such as under WHS regulations).
38. Where actions are required to prevent risk to health or the environment, the LTSMP should be more prescriptive – i.e. use “must” instead of “should” where appropriate, throughout the LTSMP.
39. Discussion of contamination remaining on site (currently mentioned in sections 1, 2 and 3) will need to be updated, based on comments on the DSI (eg. statistical assessment of chemical contamination) and validation following implementation of the RAP. The LTSMP would benefit from a single section clearly describing remaining contamination, including relative risk (with and without appropriate management), and discussing any potential for migration.
40. I suggest that the objective of the LTSMP is first to provide awareness of the contamination, and to prevent and manage breaching of the cap. The LTSMP may also serve to fulfil WHS regulation requirements for an AMP and register for asbestos remaining on the site.
41. The depth of cover in landscaped areas will need to be confirmed, as per comments above in relation to the RAP. Figures and photographs illustrating capping should be included when available.
42. Section 4 would benefit from sub-headings (eg. for responsibilities, notification / implementation requirements, review of LTSMP, record keeping etc).
43. Table 1 – site-specific maintenance procedures should be included as part of the LTSMP. Routine checks should refer to Table 3. Responsibilities for maintenance staff, subcontractors and workers include both reading and compliance with the LTSMP.
44. Section 4 – as well as notation on the Section 10.7 certificate, the consent condition for implementation of the LTSMP should be noted, and any WHS regulatory requirements (eg. for an AMP and asbestos register).
45. As mentioned above, review of the LTSMP should be under a subheading. Timing for review should be stated (eg. at least annually, and if any incidents occur which indicate the SMP needs updating) with more specific guidance on updating the LTSMP (eg. non-compliance and corrective action forms, input from appropriately qualified environmental professional). Protocols for reporting and record keeping should be included.
46. Table 3 could be made into a ‘record’ form, eg. by including “Date” and “Inspected by” fields, as well as a place for “Corrective actions” and “Update to SMP required?”

5 Conclusions and recommendations

5.1 Conclusions

I consider the additional investigations have addressed the requirements of my previous Interim Advice and are in substantial compliance with relevant guidelines. The DSI findings are generally appropriate, although further discussion of post-demolition site conditions and more detailed statistical assessment of chemical contaminants is recommended. These recommendations are not likely to change the proposed management approach, and if anything, are likely to indicate that chemical contaminants do not govern remediation requirements. Findings in relation to management of asbestos in soils contamination are likely to remain unchanged, however the updated DSI will provide a more comprehensive basis for the forthcoming validation report (following implementation of the RAP) and for eventual finalisation of the LTEMP.

The RAP has been updated to reflect the findings of the DSI. The management approach described in the RAP is considered appropriate, and as noted above, unlikely to change as a result of the recommendations for the DSI. I consider the RAP as reviewed is sufficient to meet the requirements of Condition A19, provided the recommendations in this Interim Advice are taken into account during implementation of the RAP.

5.2 Recommendations

The DSI report should be updated to address the comments in Section 4.1 above. If timing constraints require, I consider this can be undertaken in parallel with implementation of the RAP.

Implementation of the RAP should address the comments provided in Section 4.2 above. If timing allows, the RAP should preferably be updated prior to implementation.

As noted above, I consider the draft LTSMP is appropriate at this time and can remain draft until completion of the site validation works. The comments in Section 4.3 and Attachment C of this Interim Advice should be taken into account when updating the LTSMP following implantation of the RAP and validation of the site.

I trust this Interim Advice is sufficient for your current purposes. Please contact me if you wish to discuss anything further.

Sincerely
GHD



Ian Gregson

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Attachments A: Site inspections and previously reviewed documents
 B: Review of RAP
 C: Review of LTSMP
 D: Limitations to Interim Advice

6 Attachment A – Site inspections and previously reviewed documents

Site inspections have been undertaken by the Auditor as follows:

- Brief site inspection of the former Newcastle Courthouse site on 8 November 2019
- Inspection of the adjacent Police Station site on 14 November 2019
- Inspection of the site following demolition of the east wing, on 18 March 2020.

The following documents have previously been reviewed as part of this site audit:

- Douglas Partners 2019, *Sampling, Analysis and Quality Plan, Supplementary Detailed Site Investigation (Contamination), Nihon University Australia, Newcastle Campus Project, 9 Church Street, Newcastle*, Douglas Partners Pty Ltd, 21 November 2019.
- Cardno 2019, *Conceptual Remediation Action Plan, 9 Church Street, Newcastle NSW*, Cardo (NSW/ACT) Pty Ltd, 28 May 2019
- Coffey 2012, *Phase 1 Environmental Site Assessment Newcastle Courthouse and Former Newcastle East Public School*, Coffey Environments, 25 July 2012
- Prensa 2016, *Detailed Site Investigation, 9 Church St, Newcastle, NSW 2300*, Prensa Pty Ltd, October 2016
- Napier & Blakely 2008, *The Newcastle Courthouse, Church Street, Newcastle NSW, Asbestos Materials Report*, Napier & Blakely Pty Ltd, August 2008
- Cardno 2018, *Report on Geotechnical Investigation, Newcastle Courthouse Redevelopment*, Cardo (NSW/ACT) Pty Ltd, 20 December 2018

7 Attachment B: Review of RAP (Douglas Partners 2020c)

For the remediation and management aspects of the RAP, the Auditor has referred to the specific reporting requirements for RAPs from the *Guidelines for Consultants Reporting on Contaminated Sites* (OEH 2011). The compliance of the RAP with these requirements is illustrated in Table 1.

Table 1 RAP compliance with Reporting Guidelines (OEH 2011)

Reporting requirement	RAP compliance
Remediation goals	Discussed in Sections 7.1 and 7.2. Considered appropriate subject to comments in s.4.2 of this Interim Advice.
Discussion of extent of remediation required	<p>Not specifically discussed, however s.6 states the results of the DSI indicate the impacted soils are situated broadly across the site within filling and natural soils (some at depth). The RAP notes that the Court House building will be retained as an 'Educational Establishment' and impacted soils likely to be present beneath the existing building will also be effectively capped by the existing building.</p> <p>The Auditor agrees that remediation or management applies to fill across the whole of the site, based on the findings of the DIS (with the likely exception of</p>

Reporting requirement	RAP compliance
	soils beneath the heritage Court House building, based on the date of its construction). The adopted remediation strategy is not particularly sensitive to the extent of impact (and in fact has apparently been selected at least in part on that basis).
Discussion of possible remedial options and how risk can be reduced	<p>s.6 refers to the remediation options review undertaken in the cRAP (Cardno 2019) and subsequently focusses on the two remediation options identified by Cardno as suitable for the identified contaminants, being excavation and off-site disposal or isolation and management on site by containment below a capping layer or hardstand.</p> <p>While the RAP has not reiterated the options review process presented in the cRAP, the Auditor considers it sufficient to follow on with the selected options.</p>
Rationale for the selection of recommended remedial option	<p>s.6 notes that remediation via excavation, stripping and off-site disposal of impacted materials is not likely to be feasible from both a practical, cost effective or time-effective perspective based on discussions with the client/developer. The adopted approach is therefore a combination of the two options mentioned above, being:</p> <ul style="list-style-type: none"> • Off-site disposal of contaminated soils from the upper fill profile where required as part of earthworks construction (i.e. excess soils not able to be reused on-site); and • On-site management (capping) of remaining contaminated soils. <p>s.6 states that on-site management of contaminated soils is considered to be a feasible remediation option to protect human health and the environment and minimise constraints on the future use of the site for the university development, and notes the Waste Hierarchy adopted by the NSW EPA is, in order of preference, Avoidance, Resource Recovery and Disposal. A 'Cap and Contain' approach would be consistent with a resource recovery initiative.</p> <p>The Auditor considers the rationale is appropriate for the contamination identified to date. Asbestos appears to be the governing contaminant, and the NEPM (NEPC 2013) Schedule B1 section 4.1.1 notes that management of asbestos in situ is encouraged, which may include covering the contamination with uncontaminated fill or other protective or warning layers. This is consistent with the recommended remedial option.</p>
Data gaps	Data gaps are not specifically discussed in the RAP. Additional investigations have been undertaken (reported in Douglas Partners 2020b) to address previously identified data gaps, although the Auditor notes that systematic coverage of the site has not been achieved. The DSI (Dougal Partners 2020b) notes that further inspection of the Supreme Courte building area will be undertaken following demolition. Section 10.1 of the RAP indicates inspection of ground surface will be undertaken following removal of building slabs, and the Unexpected Finds Protocol in s.10.7 provides for periodic inspection by the consultant. The Auditor considers that procedures in the RAP are sufficient to address remaining data gaps, given the proposed remediation strategy.
Validation plan	Validation is described in s.11 of the RAP. The Auditor considers this is generally appropriate, subject to comments in Section 4.2 of this Interim Advice.

Reporting requirement	RAP compliance
Contingency plan if the selected remedial strategy fails	s.10.1.1 – outlines a brief contingency plan, essentially off-site disposal or further investigation for unexpected contamination. The Auditor considers the contingency plan is adequate for the site conditions and proposed remediation strategy.
Adopted remediation criteria	s.7.2 – the Auditor considers the remediation acceptance criteria are satisfactory and consistent with relevant guidelines, although conservative in some ecological criteria as noted in Section 4.2 of this Interim Advice.
Interim site management plan (before remediation)	Not stated. The site is now in control of the demolition / construction contractor and is securely fenced.
Site management plan (operational phase)	s.13 describes environmental management requirements during construction (including remediation), and refers to the contractor preparing a construction environmental management plan (CEMP). The Auditor considers the RAP adequately addresses site management requirements, given the Consent requires a CEMP, which is subject to separate environmental audit. The Auditor has not reviewed the CEMP.
Remediation schedule	s.13 – to be part of contractor's CEMP. The Auditor presumes that a schedule is in place for the demolition, remediation and construction works.
Hours of operation	s.13 – to be part of contractor's CEMP, and subject to Consent conditions.
Contingency plans to respond to site incidents	s.13 – to be part of contractor's CEMP.
Identification of regulatory compliance requirements	s.9 – discusses regulatory approvals and licences. The Auditor considers these are generally covered, except that the RAP does not refer to or discuss the current Consent for the site.
Names and phone numbers of appropriate personnel to contact during remediation	s.13 – to be part of contractor's CEMP.
Community relations plans	s.13 – to be part of contractor's CEMP.
Staged progress reporting, where appropriate	s.12.4 notes that the staged construction program may require interim validation reports for each stage. The Auditor considers this is appropriate.
Long term site management plan	s.7.3 – notes a long term Site Management Plan (SMP) is required for on-site management of contamination. A brief outline is provided. The Auditor notes a draft SMP has been provided and reviewed, as discussed in Section 4.3 and Attachment C of this Interim Advice.

The *Guidelines for the NSW Site Auditor Scheme* (EPA 2017) also provides specific guidance in relation to remediation policy and issues. Compliance of the RAP with relevant issues from this guidance is illustrated in **Table 2**.

Table 2 Compliance with remediation policy (from EPA 2017)

Aspect	RAP compliance
Remediation hierarchy	Briefly discussed in s.6 of RAP. Based on site conditions, previous review in the cRAP (Cardno 2019) and nature of development, the Auditor considers the remediation strategy is consistent with the EPA's remediation hierarchy.
On-site containment and capping	EPA 2017 includes specific requirements (long term stability, no erection of structures that may result in a risk of harm, notification mechanism). The on-site structures are proposed as the capping mechanism, as discussed in the RAP. The Auditor presumes that geotechnical requirements will be addressed to ensure long stability of the structures, as mentioned in the RAP (eg. s.10.1). No vapour intrusion risks have been identified by the DSI. The RAP acknowledges Council's specific requirements relating to capping / containment of contaminated soil, including that this would be category 1 remediation. Notification by way of notation on the Section 10.7 Planning Certificate is stated in the RAP.
EMPs	EPA 2017 (s.3.4.6) has specific requirements for long term management plans, including review of the EMP by an auditor, that the EMP can reasonably be made legally enforceable, public notification of any restrictions applying to the land, and no off-site migration of contamination from the land. These aspects are reviewed by the Auditor in Table 4 below.
Contamination at depth	No contamination requiring remediation has been identified at depth (identified contamination is confined to fill material, although some elevated PAHs were identified in natural material – the Auditor considers these may be attributable to coal or potentially cross contamination from fill during sampling).
Vertical mixing	Vertical mixing is not proposed.
Bioremediation	Bioremediation of contaminated soils is not proposed.
Waste management	Waste management requirements are discussed in sections 7.1, 8, 9 and 10 of the RAP and are considered appropriate.
Chemical Control Orders / asbestos waste	No contaminants subject to chemical control orders have been identified on the site. Requirements relating to asbestos waste management are discussed in the RAP.
Groundwater remediation and management	No groundwater remediation or management is required, based on the findings of the DSI (Douglas Partners 2020b).
Hazardous ground gas remediation and management	Hazardous ground gas has been assessed in the DSI and is not considered to require remediation or management.

8 Attachment C: Review of LTSMP (Douglas Partners 2020d)

To date, no specific guidelines for EMPs have been prepared or endorsed by the NSW EPA. However, an EMP guideline for the Preparation of Environmental Management Plans (DIPNR, 2004) is available and can be used as a guideline to ensure a minimum standard and consistent approach to EMP preparation. The guideline notes that the scope and content of an EMP will be a function of both the significance of a project's potential environmental impacts and also a project's size, however there are common elements that should be included in all EMPs. The guideline lists four main elements that should be included in an EMP, together with information and issues that may need to be addressed under each element. These are summarised in **Table 3** below, indicating where this information is presented in the Douglas Partners draft LTSMP, or issues that should be further addressed.

The Auditor notes that the NSW is currently working on guidelines for EMPs, and the following requirements may change by the time the LTSMP is finalised. Consideration should be given to guidelines in place at the time of finalising the LTSMP.

Table 3 Compliance with EMP Guideline (DIPNR, 2004)

Element	Information	Addressed in draft LTSMP
Background		
	Introduction	Section 1
	Project Description	Section 3
	EMP Context	Section 1
	EMP Objectives	Section 1
	Environmental Policy	n/a
Environmental Management		
	Environmental Management Structure and Responsibility	Section 4 (Table 1)
	Approval and Licensing Requirements	Not discussed. The LTSMP should refer to any regulatory requirements, including the Consent and WHS requirements.
	Reporting	Section 4 refers to documenting changes and/or disturbance to capping. The LTSMP should also consider reporting and maintenance of records.
	Environmental Training	Section 4 (inductions)
	Emergency Contacts and Response	Attachment Table 2 – to be completed in final LTSMP.
Implementation		
	Risk Assessment	Section 3 (last paragraph) mentions human health or environmental risk, but needs updating and should be clarified to indicate risk with and without control measures.
	Environmental Management Activities and Controls	Section 4. Considered adequate given that disturbance of capped materials is unlikely to occur during normal use of the site.

Element	Information	Addressed in draft LTSMP
	Environmental Management Plans or Maps	Figures referenced in Section 3 but not yet provided. Figures and photographs should be provided in final LTSMP.
	Environmental Schedules	Attachment Table 3 for Capping / Condition Inspection guide. Section 6 (reporting). Section 1 refers to incorporating the SMP in the Nihon University overall property management plans/ procedures. Not knowing what form these will take, consideration should be given to including forms for inductions, non-compliance and corrective action.
Monitor and Review		
	Environmental Monitoring	Section 4 and attachment Table 3 relating primarily to integrity of capping.
	Environmental Auditing	Not required except for revisions to the SMP that decrease the level of site management (end of Section 4).
	Corrective Action	Not specifically included. A corrective action form should be considered as noted above.
	EMP Review	Section 4 – regular review of SMP, update if required.

In relation to current NSW EPA requirements, Section 3.4.6 of EPA 2017 describes specific requirements for an EMP. EPA 2017 states that an EMP succinctly describes the nature and location of contamination remaining on-site and states what the objectives of the plan are, how contaminants will be managed, who will be responsible for the plan's implementation and over what time frame actions specified in the plan will take place.

EPA 2017 also states that the length and precise content of the EMP will depend on the complexity of site issues, and a short concise EMP may be adequate to address issues at a simple site. Regardless of its length, an EMP must be a stand-alone document with enough detail and clarity in the description of the site and the actions required to be readily understood.

Section 3.4.6 of DEC 2017 also notes a number of prerequisites for implementation of an EMP to be included as a condition on a site audit statement or accepted by an auditor as a means of managing contamination on a site, as shown in **Table 4**.

Table 4 EMP compliance with requirements of EPA 2017

Requirement	Compliance
The EMP has been reviewed by the auditor.	The draft LTSMP has been reviewed by the Auditor by way of this Interim Advice. The final LTSMP must be reviewed and approved by the Auditor, as required by condition E32 of the consent.
The EMP can reasonably be made enforceable... The relevant authority should be asked their view on the legality of the draft EMP.	The LTSMP (as approved by the Auditor) is legally required to be implemented under the <i>Environmental Planning and Assessment Act 1979</i> , by way of Condition F7 of the Development Consent (SSD 9787).

Requirement	Compliance
There will be appropriate public notification of any restrictions applying to the land to ensure that potential purchasers or other interested individuals are aware of the restrictions.	Sections 1 and 4 note that the SMP should be noted on the site's Section 10.7 Planning Certificate. Section 1 also refers to incorporating the SMP in the Nihon University overall property management plans/ procedures, and notation on title information for the site.
There is no off-site migration of contamination, or where there is off-site migration or its potential, that contamination is managed or monitored so that it does not present an unacceptable risk to either the on-site or off-site environments.	Based on investigations to date, the Auditor considers the potential for offsite migration of contamination is low and does not present an unacceptable risk to the offsite environment. This should be further clarified in the validation report and in the final LTSMP.

As noted in Section 2 of this Interim Advice, the draft LTSMP has been reviewed against the requirements of SSD 9787 Condition E32, as well as the requirements above. The LTSMP will be updated and finalised based on the findings of the validation report (to be prepared following implementation of the RAP), however the comments below should be taken into account both in validating the remediation and in finalising the LTSMP.

Table 5 EMP compliance with requirements of SSD 9787 Condition E32

Requirement (SMP must include)	Comment
(i) a description of the nature and location of any contamination remaining on site	Brief mention in sections 1, 2 and 3. The final LTSMP would benefit from a single section with a clear description, based on the DSI (including comments in this Interim Advice) and subsequent implementation of the RAP and validation of the site.
(ii) provisions to manage and monitor any remaining contamination, including details of any restrictions placed on the land to prevent development over the containment cell	Provided in Section 3. To be updated following implementation of the RAP and validation of the site. The development over contamination is an inherent part of the capping, and is considered appropriate.
(iii) a description of the procedures for managing any leachate generated from the containment cell, including any requirements for testing, pumping, treatment and/or disposal	Not considered applicable. The final LTSMP should include clarification that leachate / migration of contamination is not an issue (i.e. in description of remaining contamination, as noted above).
(iv) a description of the procedures for monitoring the integrity of the containment cell	Covered in Section 4 and Table 3.
(v) a surface and groundwater monitoring program	Not considered necessary based on results to date.
(vi) mechanisms to report results to relevant agencies	Not considered applicable, as there is no monitoring.
(vii) triggers that would indicate if further remediation is required	Not considered applicable, as there is no monitoring.

Requirement (SMP must include)	Comment
(viii) details of any contingency measures that the Applicant is to carry out to address any ongoing contamination	Provisions for review of SMP in Section 4. The final LTSMP should include more specific guidance in updating the LTSMP if required.

9 Attachment D: Limitations to Interim Advice

This Interim Advice has been prepared as part of a site audit undertaken in accordance with relevant provisions of Part 4 of the Contaminated Land Management (CLM) Act 1997.

This Interim Advice:

1. has been prepared by Ian Gregson and members of his support team as indicated in the appropriate sections of this Interim Advice ("GHD") for dwp and Azusa Sekkei;
2. may be used and relied on by dwp and Azusa Sekkei;
3. may be used by and provided to the EPA and the relevant planning authorities for the purpose of meeting statutory obligations in accordance with the relevant sections of the CLM Act 1997 or the Environment Planning and Assessment (EP&A) Act 1979;
4. may be provided to other third parties but such third parties' use of or reliance on the Interim Advice is at their sole risk, as this Interim Advice must not be relied on by any person other than those listed in 1-3 above without the prior written consent of GHD; and
5. may only be used for the purpose as stated in **Section 1** of the Interim Advice (and must not be used for any other purpose).

GHD and its servants, employees and officers (including the Auditor) otherwise expressly disclaim responsibility to any person other than dwp and Azusa Sekkei arising from or in connection with this Interim Advice.

Whereas these current opinions and recommendations have been provided as interim guidance to assist in the assessment and management of contamination issues at the site, this guidance should not be regarded as "approval" of any proposed investigations or remedial activities, as such approval is beyond the scope of an independent review. The NSW EPA *Guidelines for the NSW Site Auditor Scheme* (2017) contains a description of the site assessment and audit process, which includes the following:

- A site audit is the second in two tiers of work in the site assessment and remediation process.
- The **'first tier' is the work of a contaminated site consultant**, generally engaged by the site owner or developer. The contaminated site consultant designs and conducts a site assessment and any necessary remediation and validation, and documents the processes and information in reports; and
- The **'second tier' is the site audit** which involves a site auditor independently and at arm's length reviewing, for one of the audit purposes stated in the CLM Act, the consultant's assessment, remediation and validation plans or reports. The material outcomes of a site audit are a site audit report and site audit statement.

The purpose of the auditor's review is to assess whether the works undertaken (or proposed to be undertaken) comply with current regulations, standards and guidelines, and that the site has been assessed, remediated and validated to a standard appropriate for the proposed land use. In the first instance, the contaminated land consultant should be satisfied that the work to be conducted conforms to all appropriate regulations, standards and guidelines; and is appropriate, based on the site's historical land use, physical characteristics and proposed land use.

This interim review and advice do not constitute an audit under the provisions of the Contaminated Land Management (CLM) Act 1997, and do not pre-empt the conclusions which will be drawn at the end of the audit process. A site audit report and site audit statement will be issued when the audit process has been completed.

It is the nature of contaminated site investigations that the degree of variability in site conditions cannot be completely known and no sampling and analysis program can eliminate all uncertainty concerning the condition of the site. Professional judgement must be exercised in the collection and interpretation of the data. In the conduct of

this review, in particular, reliance has been placed on data provided in the various site investigation and assessment reports. The Auditor is unable to provide certification outside of areas over which he had some control or is reasonably able to check, and does not accept responsibility for inaccuracies in information provided for review as part of this Audit.

To the maximum extent permitted by law, all implied warranties and conditions in relation to the services provided by GHD and the Interim Advice are excluded unless they are expressly stated to apply in this Interim Advice.

The services undertaken by the Auditor, his team and GHD in connection with preparing this Interim Advice were undertaken in accordance with current profession practice and by reference to relevant guidelines made or approved by the EPA under Section 105 of the CLM Act 1997.

The opinions, conclusions and any recommendations in this Interim Advice are based on assumptions made by the Auditor, his team and GHD when undertaking services and preparing the Interim Advice ("Assumptions"), as specified throughout this Interim Advice. GHD and the Auditor expressly disclaim responsibility for any error in, or omission from, this Interim Advice arising from or in connection with any of the Assumptions being incorrect.

Subject to the paragraphs in this section of the Interim Advice, the opinions, conclusions and any recommendations in this Interim Advice are based on conditions encountered and information reviewed at the time of preparation of this Interim Advice and are relevant until such times as the site conditions or relevant legislations changes, at which time, GHD expressly disclaims responsibility for any error in, or omission from, this Interim Advice arising from or in connection with those opinions, conclusions and any recommendations.

The Auditor and GHD have prepared this Interim Advice on the basis of information provided by the client, their consultants and others who provided information to GHD (including Government authorities), which the Auditor and GHD have not independently verified or checked ("Unverified Information") beyond the agreed scope of work.

The Auditor and GHD expressly disclaim responsibility in connection with the Unverified Information, including (but not limited to) errors in, or omissions from, the Interim Advice, which were caused or contributed to by errors in, or omissions from, the Unverified Information.

The opinions, conclusions and any recommendations in this Interim Advice are based on information obtained from, and testing undertaken at or in connection with, specific sampling points and may not fully represent the conditions that may be encountered across the site at other than these locations. Site conditions at other parts of the site may be different from the site conditions found at the specific sampling points.

Although reasonable care has been used to assess the extent to which the data collected from site is representative of the overall site condition and its beneficial uses, investigations undertaken in respect of this Interim Advice are constrained by the particular site conditions as discussed in this Interim Advice. As a result, not all relevant site features and conditions may have been identified in this Interim Advice.

Site conditions (including any the presence of hazardous substances and/or site contamination) may change after the date of this Interim Advice. The Auditor and GHD expressly disclaim responsibility:

- Arising from, or in connection with, any change to the site conditions;
- To update this Interim Advice if the site conditions change.

These Disclaimers should be read in conjunction with the entire Interim Advice and no excerpts are taken to be representative of the findings of this Interim Advice. This Interim Advice should not be altered, amended or abbreviated, issued in part or issued incomplete in any way without prior checking and approval by GHD.