Edmondson Park South – Sewage Treatment Plant Decommissioning and Remediation (MP10_0118 MOD 3)

Response to Submissions, September 2016

Attachment A: Summary of Submissions and Responses to Issues Raised in Submissions

No.	Key Issues Summary	UrbanGrowth NSW Response
Environment Protection Authority		
Site Criteria		
1	The RAP states that biological criteria will be derived from "NSW EPA 1997". Clarification of the guideline on which the criteria is based should be provided (appears to be Environmental Guidelines: Use and Disposal of Biosolids Products (NSW EPA 1997).	The biological criteria have been based on Environmental Guidelines: Use and Disposal of Biosolids Products (NSW EPA 1997).
2	JBS&G provides Ecological Based Soil Validation Criteria derived from the National Environment Protection Measures (NEPC 2013). Further justification of the criteria should be undertaken based on site specific pH, Cation Exchange Capacity and soil type at the site. Where the Ecological criterion cannot be appropriately justified then site-specific Ells should be considered for heavy metals [including but not limited to Copper, Nickel Zinc and Chromium (III)] based on the pH, CEC, percentage Clay and Iron levels at the site.	At the time of the RAP preparation, site specific data was not available and so the most conservative published EILs were presented in the table, inclusive of a footer note that these may be updated via application of the methodology presented in NEPC (2013) as noted in the EPA comments. It is proposed that site specific soil data will be collected during validation activities to provide for calculation of final ecological based validation criteria and this process will be approved by the appointed site auditor.
3	JBS&G provides Health Based Soil Investigation Criteria, which are an aggregated set of values from several origins and refers to "Health Screening level HSL-C" which we assume relate to the NEPC 2013 soil HSLs for vapour intrusion. The guidelines on which the criteria are derived should be referenced in the Table. Further explanation is required to justify the use of the adopted guidelines relative to the proposed site use.	The text of Section 7.1.5 of the RAP above the referenced table indicates the validation criteria are based on National Environment Protection (Assessment of Site Contamination) *Amendment Measure 2013 (No. 1), National Environment Protection Council, 2013* referenced as NEPC (2013). Section 7.5 of the RAP specifies HIL-C for public open space and HSL-C for recreational open space. These are the appropriate criteria to be adopted for the proposed future uses of the site comprising Regional Park and public open space, and it is considered that the RAP has provided sufficient information to justify the appropriateness of the specified criteria.

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4	Ammonia has been reported above criteria in groundwater and surface waters on the site however ammonia does not appear to be included in validation criteria. It is recommended that monitoring for all chemicals of concern including ammonia is undertaken in groundwater and surfaces waters during the remediation and as a component of the validation work.	Assessment of surface water prior to pond dewatering as outlined in RAP section 5.4.3 includes analysing for ammonia. Assessment of groundwater ammonia conditions as presented in the detailed assessment reports included a discussion of ammonia in groundwater conditions as identified at the site. The assessment concluded that the ammonia concentrations reported did not present an unacceptable risk to future site users or the sensitive receiving environment. This assessment report was reviewed by an EPA accredited site auditor prior to development of the RAP and it was agreed that no further consideration of ammonia in groundwater was required. If necessary, it is considered that an additional round of groundwater sampling could be undertaken prior to decommissioning of the monitoring wells during the demolition works to satisfy the EPAs concerns.
Remedial Action Plan		
5	The RAP contains cross sections for the proposed encapsulation cells 1, 2 3 and 5. Please include the cross sections for cells 4, and 6 or provide explanation as to why these were not included.	The RAP identified a number of possible encapsulation cell options, however this Modification Application is only for the construction and use of Cell 2.
6	Section 9.5.1 of the RAP describes the dust control that will be undertaken during the remediation of asbestos during excavation and placement within containment cells. Section 5.5.2 recommends the use of a licensed contractor for the work together with monitoring of dust, use of mist sprays and asbestos air fibre monitoring be completed in the vicinity of the asbestos works.	Noted. The monitoring and mitigation measures will be carried out in accordance with the RAP for remediation works involving asbestos impacted material.
Validation and Management		
7	The RAP recommends that a Validation Assessment be prepared and reported at the completion of the remediation works. The EPA agrees with the need for site validation and recommends that the reporting include the proposed construction of containment cells together with full survey and engineering plans, and engineering reports to validate the as built construction of the containment cell.	UrbanGrowth NSW accepts this recommendation.

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8	Section 7.5 of the RAP proposed Validation Criteria to be used at the site but recommends validation of the groundwater is not required. It is recommended that validation of the groundwater and surface waters at the time of completion of the remedial work is further considered due to the potential for the remedial work to disturb soil and generate contaminated leachate.	Monitoring of surface water conditions will be completed prior to and during oxidation pond dewatering activities to ensure compliance with obligations under the POEO Act. As per the response to Item 4, another round of groundwater monitoring could be undertaken to address EPA concerns prior to decommissioning of the monitoring wells during the demolition works. Given the scope of works, the monitoring wells will be removed prior to completion of works and as there is no evidence of impacted soil at depth likely to result in the generation of contaminated leachate, re-installation of monitoring wells at the completion of remediation works is considered unwarranted. It is noted that should soil impact at depth be unexpectedly identified, implementation of additional assessment and validation of groundwater may be required during implementation of the Unexpected Finds Protocol included in the RAP. This will be further discussed with the site auditor as appropriate.
9	Section 2.3.1 of the EAR refers to Site Audit Statements prepared for the site. Site Audit Statements for Lot 3 of DP831152 state that the site can be made suitable for various uses subject to compliance with the relevant EMPs. It is recommended that a Part B Site audit statement also be required to be prepared and issued by a site auditor accredited under the Contaminated Land Management Act 1997 after completion of the validation work to confirm that the site is suitable for the proposed use prior to any transfer of the land.	UrbanGrowth NSW accepts this recommendation, and notes that the proposed future use of the land is for parks and recreational open space.
10	The RAP recommends development of a new EMP to manage proposed asbestos and lead containment cells. We agree with the consultant's recommendation that a complete and current EMP should be prepared for the site which identifies ongoing requirements and persons responsible for implementing long term management requirements.	Noted. A new EMP will be prepared for the STP site in accordance with the recommendation of the RAP.
11	Section 6.1 of the EAR indicated containment cells 1 to 4 would be managed by OEH. The long term management requirements and requirements for ongoing maintenance requirements should be agreed at an early stage in any discussions about the proposed transfer of land.	UrbanGrowth NSW has already initiated discussions with NPWS in relation to the transfer of the land containing a containment cell and the associated monitoring and maintenance requirements.

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12	EPA recommended conditions of approval: 1) Monitoring of dust, use of mist sprays and asbestos air fibre monitoring should be undertaken during the remedial work and remedial work involving disturbance and transport of friable asbestos should be undertaken by a licensed contractor. 2) Monitoring for all chemicals of concern including ammonia should be undertaken in groundwater and surface waters during the remediation and as a component of the validation work. 3) A validation assessment should be prepared and reported at the completion of the remediation works, including full survey and engineering plans, and engineering reports to validate the as built construction of the containment cell. 4) Validation of groundwater and surface water is recommended to be undertaken to enable appropriate consideration of whether validation of groundwater and surface waters is required after the remedial work. 5) A Part B Site audit statement should be prepared and issued by a site auditor accredited under the CLM Act after completion of the validation work to confirm that the site is suitable for the proposed use prior to any transfer of the land. 6) An EMP should be prepared for the site which identifies ongoing management requirements and persons responsible for implementing them. The maintenance and management requirements should be agreed at an early stage in any discussions about the transfer of land.	1) Noted. The monitoring and mitigation measures will be carried out in accordance with the RAP for remediation works involving asbestos impacted material. 2) Refer to response for items 4 and 8 above. The requirement for ammonia in surface water assessment is already included in the RAP. The requirement for ammonia in groundwater monitoring is not considered to be justified based on existing monitoring data as presented to the site auditor. To confirm the current conditions, another round of groundwater monitoring could be undertaken prior to decommissioning of the existing monitoring wells with the results to be discussed with the site auditor to confirm the existing assessment conclusions in relation to ammonia impact. 3) UrbanGrowth NSW accepts this recommendation. 4) As per 2) above. 5) UrbanGrowth NSW accepts this recommendation for the preparation of a Site B Site Audit Statement. 6) A new EMP will be prepared for the STP site in accordance with the recommendation of the RAP, and long term maintenance and management requirements agreed with NPWS prior to the transfer of the land.
Office of Environment and Heritage		
13	Preferred remediation method – The temporary stockpiles for demolition waste shown on Appendix 01, Remediation Works Plan, should be included in the Remedial Action Plan (RAP). Depending on the nature of contaminants, these stockpile areas may also need to be considered in the Validation Report and Site Audit Statement.	Stockpile areas will be subject to validation plan, and will be included in the Validation Report and Site Audit Statement.

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14	Remedial works – OEH's understanding is that the proposed containment cell is containment cell 2 as identified in the RAP.	Correct. The Modification Application is only for the construction and use of containment cell 2.
15	Final Landform (section 3.7 of the EAR) The final landform of the remediated oxidation pond should ensure no ponding of water and be free draining without causing erosion. It is recommended a Final Landform Plan, prepared in consultation with OEH, be required to ensure these matters are adequately addressed.	UrbanGrowth NSW accepts this recommendation for the preparation of a Final Landform Plan to be prepared in consultation with OEH prior to the commencement filling of the containment cell.
16	Conservation agreement – It should be noted the Conservation Agreement is between the Commonwealth Government and NSW Government.	Noted.
17	Containment cell – It should be noted the proposed modification is for one containment cell only (not cell(s) as stated).	Noted, the references in the EAR to cell(s) is an error. The Modification Application is limited to containment cell 2 only.
18	Final depth of top soil – It is recommended variations in top soil depth over the containment cell be addressed in a Final Landform Plan.	UrbanGrowth NSW accepts this recommendation for the preparation of a Final Landform Plan.
19	Dewatering of oxidation ponds – In addition to the water quality issues discussed with the dewatering of the oxidation ponds to Maxwell's Creek, OEH is concerned about the potential spread of aquatic weeds. OEH is also concerned that the process and/or mechanism for dewatering the ponds is not clear. It is recommended a Dewatering Plan, developed in consultation with OEH, be required.	UrbanGrowth NSW accepts this recommendation for the preparation of a Dewatering Plan to be prepared in consultation with OEH prior to the commencement of dewatering. The Dewatering Plan will explain the process and/or mechanism for dewatering the ponds and will address the spread of aquatic weeds.
20	Consultation with NPWS – It should be noted that in consulting with NPWS, a range of matters on the proposed remediation works have been considered to ensure land use outcomes are consistent with the requirements and objectives of the future regional park.	Noted.

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Liverpool City Council		
21	**Water Quality** The EAR reported that the oxidation ponds will be discharged into a tributary of Maxwells Creek. The report indicated that heavy metal and organic contaminant concentrations in the oxidation pond were considered not to represent an unacceptable risk to sensitive receptors at, or downgradient of the site. Council officers disagree. The water quality parameters being discharged from the oxidation pond should not exceed Council's adopted water quality parameters.	Pursuant to recommendations of the OEH (see item 19 above), UrbanGrowth NSW will prepare a Dewater Plan prior to the commencement of dewatering the oxidation ponds. The Dewatering Plan will specify the water quality criteria for discharge, which will be developed with consideration of Liverpool Council's adopted water quality parameters.
22	**Contamination** Based on the submitted information, Council officers are concerned with the modification application to dispose contaminated fill 5m below existing ground level at the subject premises. This is not considered to be the best strategy for remediation. Liverpool City Council recommends excavation and disposal of contaminated materials to a licensed waste facility. In addition to the above, the works proposed may constitute an 'Integrated Development' and the activity is likely to trigger Schedule 1 of Protection of the Environment Operations Act 1997	JBS&G have confirmed the appropriateness of the selected remedial strategy in **Attachment B** of the response to submissions. In particular, the proposed strategy is considered to be the most appropriate at the site and is consistent with EPA guidance as it minimise exposure risk, reduces waste disposal and fill import requirements, and minimises the number of heavy vehicle movements. Notwithstanding the maximum capacity of containment cell 2, the total volume of contaminated materials is not expected to exceed 30,000m^3. Further, the area of contaminated soils subject of the Modification Application scope of works is less than 3 hectares. As such, the proposed remedial works do not exceed the thresholds set out in clause 15(2) of Schedule 1 of the Protection of the *Environment Operations Act 1997* and so an Environment Protection Licence is not required.

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23	**Zoning** The EAR states that the land is zoned under the Liverpool Local Environmental Plan 2008. This is incorrect. The land is zoned under State Environmental Planning Policy (State Significant Precincts) 2005. The western oxidization pond is located on the land zoned RE1 Public Recreation also under the SEPP, and will be transferred to Council at some point in the future. Council will not accept the transfer of this land until the site has been remediated and deemed suitable for its intended land use. This must be supported by a Stage 4 Validation Report prepared by a suitably qualified contaminated land consultant. The Validation Assessment must be undertaken in accordance with the NSW EPA Contaminated Site Guidelines and any other guideline or criteria.	Noted. The reference to the Liverpool LEP 2008 is an error. Noted. The Validation Report and Site Audit Statement will include the western oxidation pond, ensuring that it will be suitable for its intended use as future open space and a stormwater detention basin.

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24	**Recommendations:** 1) The Statement of Environmental Effects is updated in lieu of the incorrect statement referring to the incorrect Environmental Planning Instrument. 2) Appropriate water quality treatment must be undertaken prior to discharging any water to Maxwell's Creek, in accordance with Council's adopted water quality parameters. 3) At the completion of the decommissioning and remediation works, it is intended to reproduce the existing (or pre-existing) ground levels in order to minimise impacts to the surface water drainage regime around the site. The final landform will therefore ensure that water from the site will continue to drain into Maxwell's Creek. Council requires that proposed works must not increase flows into the creek and must be maintained at pre-existing discharge. Appropriate water quality control measures must be incorporated to ensure that water quality parameters are maintained as per Council's DCP requirements. 4) Liverpool City Council is concerned with the modification application to dispose of contaminated fill 5m below existing ground level at the subject premises. The above is not Liverpool's preferred strategy for remediation. Liverpool City Council recommends excavation and disposal of contaminated materials to a licensed waste facility. 5) The NSW EPA is the appropriate regulatory authority (ARA) for a 'scheduled activity' and therefore, pursuant to Section 91A (2) of the Environmental Planning and Assessment Act 1979 and Regulations, the modification application must be referred to the NSW EPAfor comment. The application should be referred to the Environment and Health Section of Liverpool Council once a suitable response has been received from the NSW EPA.	1) The error is acknowledged, and corrected above. It is not considered necessary to update and resubmit the EAR. 2) A Dewatering Plan will be prepared that will specify discharge criteria. 3) A Final Landform Plan will be prepared, which will confirm the overland flow arrangements into Maxwell's Creek. Since the site already flows to Maxwell's Creek, and the proposed remediation works do not involve increasing the impermeable area, it is not considered likely that overland flows into the creek would increase or that water quality parameters would be exceeded. 4) JBS&G have confirmed the appropriateness of the selected remedial strategy in **Attachment B** of the response to submissions. 5) The EPA has reviewed the Modification Application and accompanying RAP, and provided comments and recommendations (see items 1-12 above). However, it is noted that the proposed remediation works are not expected to require an Environment Protection Licence as they do not trigger the thresholds set out for a scheduled activity.