

Appendix 17

Updated Mitigation Measures

Issue	Mitigation Measures
Integration Water Management Plan	- Stormwater quantity management measures i.e including an On-Site Detention (OSD), the pit and pipe network. - A filtration system with Storm filter cartridges and rainwater tank will be incorporated to provide stormwater quality treatment for the runoff from the proposed development.
Noise	Glazing and façade treatments.
Pedestrian Wind	Ground 2-3m tall porous screening at the northern corner of the Tower A (maximum 50% open). - An impermeable wrap around awning at the northern corner of Tower A. - Interspersed porous screening or similar elements such as artwork 2-3m in height are recommended within the through-site link (maximum 50% open). The specific location and design of these elements will be verified and developed during the Detailed Design phase. - Retention of proposed planter areas with densely foliating evergreen planting including both proposed trees and shrub planting. Trees should have interlocking canopies where possible and shrub planting should be at least 1.2m tall from ground level to be effective (Comfort Mitigation Only). Level 2 (Tower B) 1.1m tall impermeable balustrades along the perimeter of the Level 2 south-western corner balcony. 1.1m tall impermeable balustrades along the perimeter of the Level 2 western and northern communal terraces. - Impermeable screening at the south-western corner of the façade of the south-western corner balcony at least 1.8m tall. - Retention of proposed planter areas with densely foliating evergreen planting including both proposed trees and shrub planting. Trees should have interlocking canopies where possible and shrub planting should be at least 1.2m tall from ground level to be effective (Comfort Mitigation Only). Level 10 (Tower A) 1.8m tall impermeable screening along the perimeter of the northern terrace area. - Retention of proposed planter areas with densely foliating evergreen planting including both proposed trees and shrub planting. Trees should have interlocking canopies where possible and shrub planting should be at least 1.2m tall from ground level to be effective (Comfort Mitigation Only).
Dewatering	General It is recommended that groundwater depth is gauged by electric water contact meter during each dewatering monitoring event. Discharge Water Criteria Exceedance

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	• <i>Immediate action must be taken to halt release of water into Council's stormwater system, where water quality is found not to meet the discharge criteria in Table 5-1.</i> ○ <i>Discharge to the stormwater system must be suspended to enable the following procedure to be implemented;</i> ○ <i>Treated water will be redirected to a spare retention basin;</i> ○ <i>A water sample will be collected and sent to the laboratory for confirmation analysis for the non-compliant parameter(s) on an express (24 hour) results turn-around basis;</i> ○ <i>Should the analytical result for the confirmation sample show that the previously non-compliant parameter(s) is/are now meet the adopted discharge water quality performance criteria, the treated water outlet may be redirected to the stormwater system; however</i> ○ <i>Should the analytical result for the confirmation sample show that the discharge water quality is confirmed not to comply with the discharge criteria, then the Water Treatment Specialist will be directed to modify the water treatment system accordingly to achieve compliant discharge water quality and a new treated water sample will be collected;</i> ○ <i>After laboratory confirmation that the revised treated water quality complies with the discharge criteria, the extracted groundwater may be re-directed to the stormwater discharge point; and</i> ○ <i>The frequency of treated discharge water quality monitoring will be returned to weekly, until such time that three consecutive compliant laboratory reports for weekly monitoring events are achieved, at which stage fortnightly monitoring may be reinstated.</i> • <i>Note: It may be necessary to have collected waters removed by a licensed wastewater contractor, should retained quantities exceed the onsite capacity for temporary storage.</i> Visible and Olfactory Impacts • <i>Similar to the above procedure (Steps 1 to 6) treated water will be redirected to the spare retention basin, while the treatment system is adjusted to manage the observed water quality issues. It may be necessary to have collected waters removed by a licensed wastewater contractor, should retained quantities exceed the onsite capacity for temporary storage.</i> • <i>The contractor is to seek advice from a suitably experienced environmental consultant in regard to the additional assessment and treatment that may be required for any observed changes to water appearance or detectable odours.</i> Repeated Criteria Exceedances • <i>Retain extracted water onsite in spare retention basin(s) and appropriate bulk containers, until it can be removed by a licensed waste contractor.</i> • <i>Determine an alternative discharge method, if necessary, updating the DMP accordingly.</i>

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	Excessive Extraction - Advise the appointed environmental consultant who will review the reasons for the increased dewatering rate. If reduction in dewatering rate cannot be implemented, WaterNSW should be contacted to review options, which may include a combination of: - Temporary retention of tail water onsite in appropriate bulk containers for subsequent removal by a licensed waste contractor; - Aquifer re-injection after obtaining regulatory approval; and/or - Fast-tracking of construction works to complete dewatering sooner than scheduled timeframe. Excessive Water Level Drawdown - As documented in the GSA report, dewatering will have negligible, if any, adverse impact on the neighbouring properties. The groundwater drawdown adjacent to the site caused by dewatering is considered negligible. - Note: The client, geotechnical engineer, structural engineer and relevant stakeholders (including the property owner(s) that may be affected), should be notified in the event of deviations to the dewatering approach for localised deeper works (e.g. localised pumping around lift pits and other deeper construction features), must be defined and implemented to manage potential settlement risk in order to safeguard neighbouring buildings/structures. Dewatering System Failures - Ensure that spare equipment parts (where practical) are on hand. Ensure that the failed equipment can be serviced by site personnel or an appointed contractor who can rapidly report to site when needed. Power Outages - Ensure that a backup generator is readily available. In this event, an assessment across the site and surrounding sites should also be completed in order to identify whether any other lights and electrical equipment are working so to identify if the issue is site specific or if it is across a whole area. In addition to having the back-up generator running, the contractor should also seek advice from an electrician in regard to the additional assessment and repairs that may be required. Unexpected Contaminants - Contact the appointed water quality expert and assess against relevant criteria. If contaminant is found to exceed the adopted criteria, follow the corrective actions corresponding to DWC Exceedance above. Expand DWC accordingly. Chemical / Fuel Spill and Leaks - Stop earthworks, notify site project manager. Use accessible soil or appropriate absorbent material to absorb the spill (if practicable). Stockpile the impacted material in a secure location, on builder's plastic to avoid cross contamination. Inspect groundwater and note any visual and/or changes. The contractor should also seek advice

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	<i>from environmental consultant in regard to the additional assessment and treatment that may be required.</i> Excessive Rainfall • <i>Ensure sediment and surface water controls are in place and functioning as intended, as per the designs provided in the site specific, soil and water management plan. Any non-conformance is to be documented and rectified. The capacity of the dewatering system to dispose larger volumes of water should be evaluated and if required, a temporary system should be utilised following correspondence with Council / WaterNSW and the environmental consultant.</i> Excessive Noise • <i>Identify the source and isolate if possible. Modify the actions of the source or erect temporary noise barriers if required.</i> Excessive Organic Odours / Vapours • <i>In accordance with Council's Contaminated Land Policy, no nuisance odours are to be detected at any site boundary during the dewatering stage. Should odour emissions be detected at a site boundary, the following measures will be implemented:</i> ○ <i>Stop work, to allow odour to subside.</i> ○ <i>Monitor ambient air across the site and boundaries with a portable photo-ionisation detector (PID).</i> ○ <i>Implement control measures, including respirators for onsite workers, use of odour suppressants and wetting down of excavated material.</i> ○ <i>Notify the occupants of adjoining premises regarding odour issues. Notification should be in writing, providing the contact details of the responsible site personnel.</i> ○ <i>Record logs for volatile emissions and odours.</i> Impacts on Stability of Adjacent Structures • <i>Contractor to seek advice from qualified professional (such as a geotechnical engineer and/or structural consultant) in regards to the additional assessment and monitoring that may be required.</i> Complaint Management • <i>Notify Client, Project Managers and Environmental Consultant (if required) following complaint. Report complaint as per project procedures.</i>