

85 HARRINGTON STREET, SYDNEY

INTEGRATED WATER MANAGEMENT PLAN

10 December 2015

Issue	Integrated Water Management Response
General Development Details	This existing site shall be developed to provide a new building consisting of 9 levels of apartments, townhouses, commercial office space and retail tenancies. This plan covers the general configuration of the systems dealing with the Integrated Water Management of the site.
Purpose	To provide a site management procedure to control the severity and extent of pollutant transport from the site including: - Stormwater and waste water: - Stormwater drainage from roof areas - Stormwater drainage from open plant areas - Stormwater drainage from paved areas, terraces and balconies - Ground seepage drainage onto the site - Car parking and dock areas drainage. - Waste water and sewerage (outcome of application for Section 73 Notice of Requirements). - Rainwater reuse. - Demonstration of Sensitive Urban Design Strategies. - Demonstrate augmentation of Sydney Water infrastructure (outcome of application for Section 73 Notice of Requirements). - Demonstrate water conservation measures (reference to BASIX requirements for the project).
Performance Criteria	Water discharged from the site is to comply with the City of Sydney Development Control Plan 2012 - Stormwater quality requirements to ensure that any detrimental impacts on water quality are managed from the site. As the site areas is larger than 1000 square metres, the quality of discharge from the site to satisfy the following Water Quality Objectives (WQOs): Release Criteria - Reduce the baseline annual pollutant load for litter and vegetation larger than 5mm by 90%. - Reduce the baseline annual pollutant load for total suspended solids by 85%. - Reduce the baseline annual pollutant load for total phosphorous by 65%. - Oils and grease – no visible films or odour. - Litter – no visible litter washed or blown from the site.
Responsibility	The owner shall be responsible for the implementation of: - The Integrated Water Management Plan (IWMP). - The Stormwater Quality Management Program (SWQMP) on completion of the project, including maintenance and report requirements. - Base building water saving strategies (as defined in the BASIX requirements). The individual apartment owners shall be responsible for the water saving strategies applied to the individual dwelling (as defined in the BASIX requirements). The Construction Contractor will be responsible for the implementation of the Stormwater Quality Management Plan (SWQMP) and waste water management during the course of all construction activities.

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Implementation Strategy	<i>During Construction</i> Permanent and long-term drains and bund walls to be established as soon as practicable. Clean-up of general site litter on a weekly basis, prior to anticipated heavy rainfall and after significant rainfall events (>25mm/24hours). Treatment of all erodible surfaces will be carried out as soon as practicable. The storage and handling of flammable and combustible liquids is managed in accordance with AS1940–1993. A detailed Erosion and Sediment Control Plan (ESCP) will prepared prior to site establishment and commencement of vegetation clearing or soil disturbance within each subdivision stage. Where appropriate, ESCPs shall incorporate guidelines on the treatment, protection and stabilisation of exposed dispersive soils. <i>Stormwater Provisions Proposed for the Development</i> The stormwater drainage systems for the site shall be developed as follows: • All stormwater systems drainage from the building shall discharge into an On Site Detention Tank located below the stair from Gloucester Street to Harrington Street. • Water from the roofs of the building will be collected separately and fall to a rainwater reuse tank local to the OSD. • Access points will be installed to provide cross ventilation and two points of entry/exit to or from the tanks for maintenance. • Drainage from balconies plant areas and paved areas will be separately drained direct to the OSD. • The basement areas will be pumped from a pump station below Basement 3. This includes ground water seepage, collected in spoon drains around the perimeter of those areas. Water from cars passing and parking in the car park shall be collected at each level and drained to the pump out at B3. This shall then be pumped to the OSD. • An assessment of ground water infiltration rates and quality will be prepared under the detailed design for the stormwater systems. • All stormwater shall then fall from the OSD to a high efficiency Gross Pollutant Trap dealing with the suspended solids, grease and oil and other pollutants to meet the aforementioned criteria. • Access to the GPT shall be provided to allow access for clearing close to Harrington Street and is likely to be at the base of the public stair passing through the site. A detailed assessment shall be made relative to the infiltrated ground water and likely contaminants that come with it. Suitable facilities shall be installed to deal with flow and management of contaminants prior to leaving the site including additional filtration if required. A detailed water reuse plan shall be established to allow the commencement of further detailed design of the reuse systems in the building. <i>Waste Water and Sewerage Proposed for the Development</i> Waste water and sewerage system will be installed in the development and connected to the Sydney Water Utilities infrastructure in accordance with the outcomes of the Section 73 Notice of Requirements. <i>Water Reuse Provisions Proposed for the Development</i> As determined under the BASIX requirements for the development relating to: • Wash down • Irrigation • Potential car washing facilities (if provided)

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Implementation Strategy (cont.)	<i>Urban Sensitive Design Proposed for the Development</i> It is acknowledged that the site is predominantly covered with hard standing surfaces and paved areas which offers little opportunity for common strategies (through vegetation and swales for example). Opportunities that arise with the detailed development of the building will be exploited as and when they are presented. <i>Water Saving Measures Proposed for the Development</i> These will be implemented and maintained as defined with the BASIX requirements for the development.
Monitoring	Appropriate erosion and sediment control (ESC) measures shall be developed both during and post construction to meet City of Sydney Council's specific requirements.
Auditing	ESCP reviews are to be carried out to meet requirements of Council both during and post construction to assess the implementation strategy.
Reporting	Reports will be prepared and submitted to Council as required, both during construction and ongoing post construction.