

Integrated Water Cycle Management Memorandum

Mirvac Residential – COBBITTY – Tranche 5 DA05d

Lot 6 DP 1276275 and Lot 143 DP 1303450



May 2025

Mirvac

Revision A

24-0694-01

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Document Control

Revision	Prepared	Reviewed	Approved	Date	Description
Rev A	David Healy	Mariano Polisciuk	Mariano Polisciuk	02/05/2025	Issued for Development Application

1 Introduction

This memorandum has been prepared to demonstrate that the IWCM controls previously proposed under adjoining stages are in accordance with the submitted IWCM Report, Stage 1 Subdivision Works Certificate (Ref DA 2023/461/1 and DA 2023/292/1), Stage 2 Subdivision Works Certificate (Ref DA 2023/461/1) (Orion Group Reference 23-0579-03) and the DA located in Lot 6 DP 1276275 (Orion Group Reference 24-0695-01) previously prepared for the subject site.

1.1 Site Description

The subject site is located within the Camden Council LGA and sits centrally within the Masterplan prepared for the site previously known as Lot 2005 (DP 1162239) No. 531 Cobbitty Road. Since the masterplan has been prepared the site has been subdivided to create a number of residue lots under DP 1276275.

This development aims to utilise permanent water quantity and water quality management infrastructure proposed in the IWCM Report (Orion Consulting Reference 23-0579-04) and subsequent adjoining stages where infrastructure varies from the original IWCM report.

The site extents for this development are shown in the figure below:

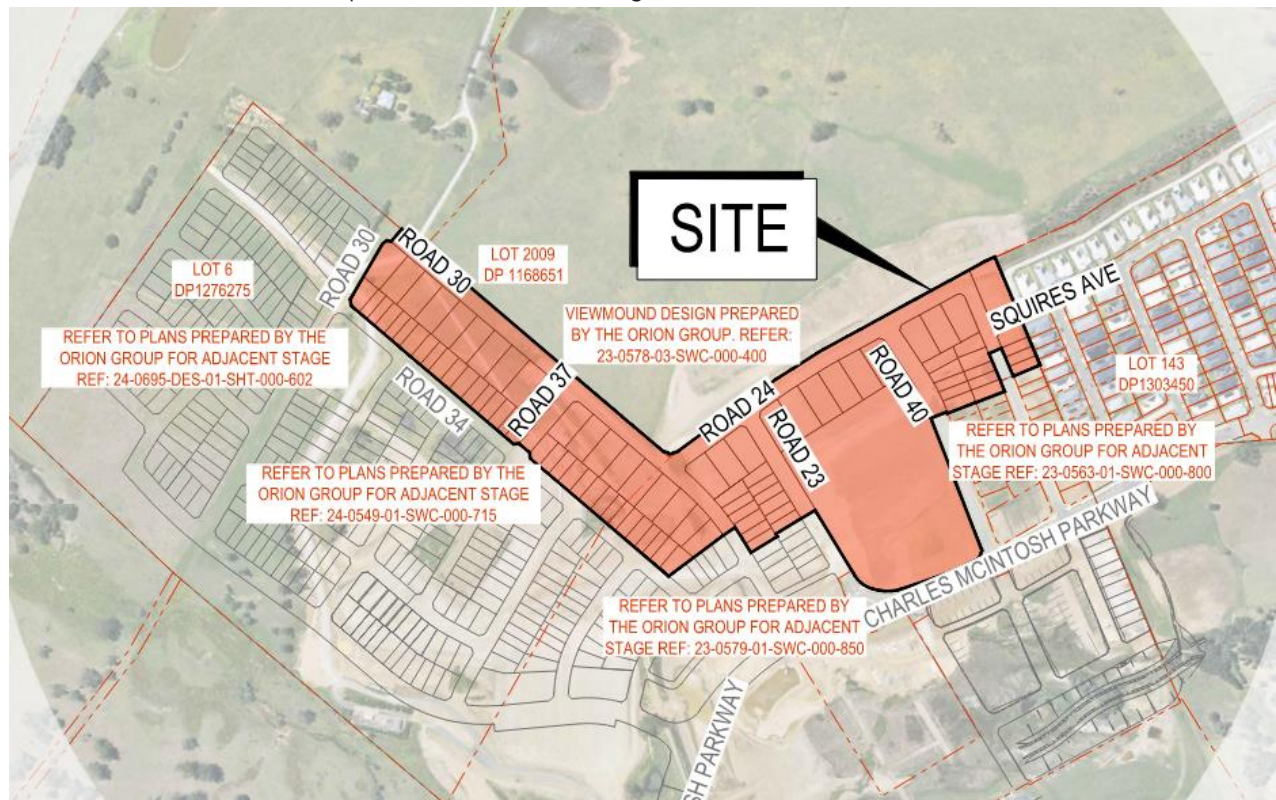


Figure 1 – Site Extents (Imagery courtesy of Metromap ©)

1.2 IWCM Infrastructure

The proposed development will utilise infrastructure approved and constructed under separate stages within the overall development. These adjoining stages include:

- Dark Green located in Lot 6 DP 1276275 (Orion Group Ref 24-0695-DES-01)
- Orange Stage 1 – DA reference DA 2023/461/1 and DA 2023/293/1 (Orion Group Ref 23-0579-01)
- Orange Stage 2 – DA reference DA 2023/461/1 (Orion Group Ref 23-0579-03)

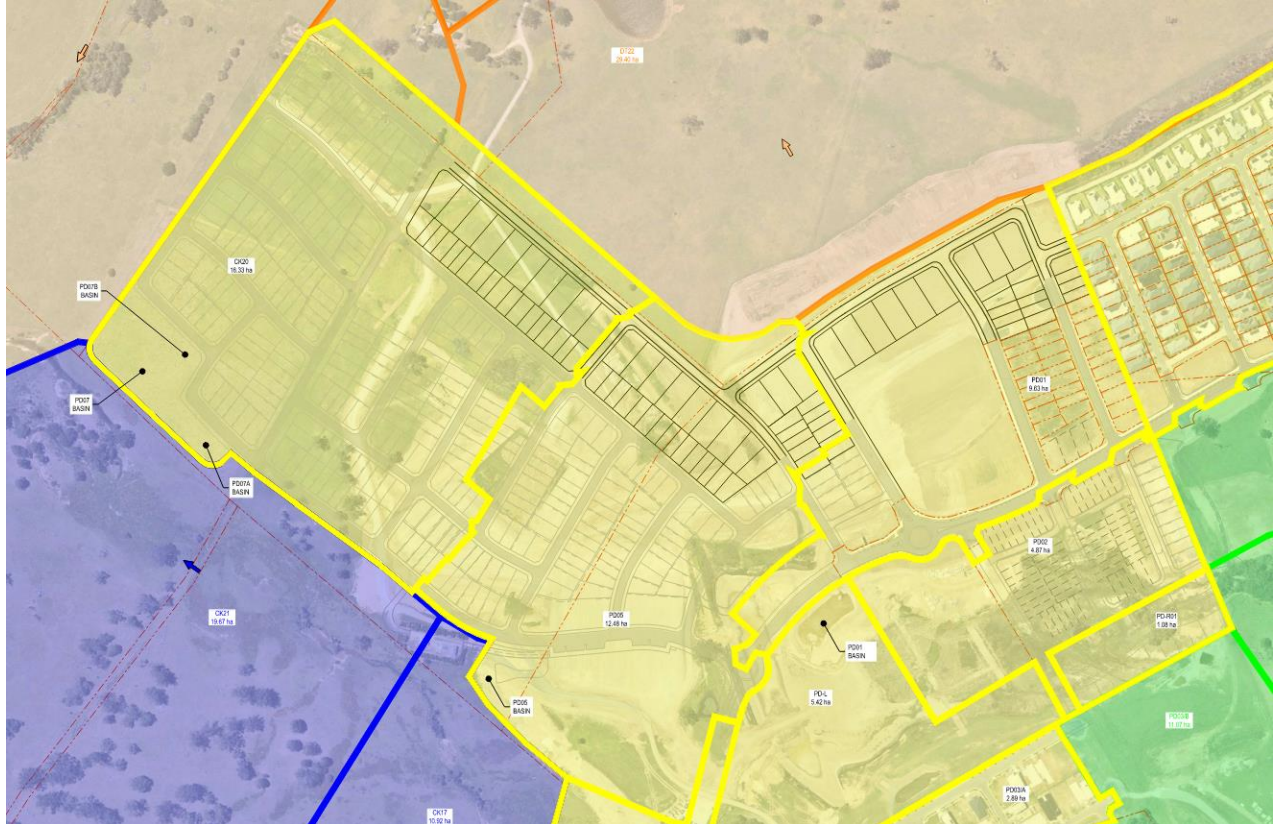


Figure 2 – Existing Infrastructure locations

2 Water Quantity Infrastructure

2.1 Required Water Quantity Infrastructure

As documented under the IWCM Report and the IWCM Memorandums prepared for the adjoining stages (Dark Green - 24-0695-01 Dated 5/3/25 Rev A, Orange Stage 1 – 23-0579-01 Dated 25/07/2024 Rev A and Orange Stage 2 – 23-0579-03 Dated 15/11/2024 Rev A), the following infrastructure is required to meet the pre-versus-post no net negative design objectives for water quantity.

Table 1 - Masterplan IWCM Water Quantity Controls

Storage Structure	1% AEP WSL (m AHD) (9hr Storm)	1% AEP Volume to WSL (m ³)	Outlet Structure Configuration
PD07	68.64	4032	First Stage - 1 x 525 Ø RCP

			Second Stage – 6m Weir at RL 68.3 (3 sides of a 1.2 x 3.6 Surface Inlet Pit) Third Stage - Weir – 29m @ RL 69.10 (Emergency Spillway Only)
Lake	74.308	102,112	First Stage - 2 x 825 Ø RCP Second Stage – 7.5m Weir (RL 73.50) and drop structure grates (RL 73.0) Third Stage – 25m Weir (RL 74.05) and drop structure grates (RL73.2)
Between Lake and Playing Fields	-	-	Lake Third Stage Weir – connected via drop structure and culverts to: 450 Ø RCP @RL 71.38 – to Cobbitty Creek &; Surcharge Chamber – Spills into Playing Fields
Playing Fields	72.041	20,452	375 Ø RCP @RL 70.10 Weir 1 – 10m Weir @ RL71.70

This DA utilises OSD and flood storage volume and configured in accordance with the Masterplan IWCM report and study and subsequent IWCM memorandums prepared for the relevant adjoining stages. As such, this DA adequately meets the required water quantity management objectives to not adversely impact any adjoining sites with all lots located above the modelled 100 Year ARI (1% AEP) + 500mm freeboard Level.

3 Water Quality Infrastructure

3.1 Required Water Quality Infrastructure (Masterplan)

As documented under the IWCM Report and the IWCM Memorandums prepared for the adjoining stages (Dark Green - 24-0695-01 Dated 5/3/25 Rev A, Orange Stage 1 – 23-0579-01 Dated 25/07/2024 Rev A and Orange Stage 2 – 23-0579-03 Dated 15/11/2024 Rev A), the following infrastructure is utilised to meet the urban development water quality management objectives for the site.

Table 2 - Masterplan IWCM Water Quality Controls

Catchment	Controls
PD01	1 x GPT & 1800 m ² Biofiltration System (Proposed under DA 2023/461/1)
PD05A	1 x GPT & 800 m ² Biofiltration System (Bio Basin PD05 in its ultimate configuration proposed under DA 2023/461/1)
PD07A	1 x GPT & 640 m ² Biofiltration System
PD07B	1 x GPT & 735 m ² Biofiltration System

It is expected all water quality controls will be installed and fully functional prior to this stage with the exception of the biofilters which require the majority of upstream dwellings (at least 80%) to be constructed prior to installation.

4 Conclusion

This memorandum demonstrates that the IWCM controls proposed under this development application are consistent with the IWCM Reports and memorandums previously prepared and approved for the subject site and hence satisfy the DCP requirements.