

ASHGROVE RESIDENTIAL SUBDIVISION

The rezoning of the RAAF Stores Depot to a residential zoning created the opportunity for Mirvac to develop a cutting edge sustainable development at Regents Park. Regulator requirements included:

- ✔ Compliance with BASIX – 40% reduction of potable water
- ✔ Retention of 45% of nutrients (Auburn Council)
- ✔ Alleviation of a stormwater system capacity problem through provision of detention and reduction of peak flows

In response, STORM developed a centralised stormwater treatment and management strategy for this site.



800 kL stormwater tank under construction

Stormwater from both on and off site is collected and managed as follows:

- ✔ Pre-treatment to remove gross pollutants and coarse and fine sediment in CDS units
- ✔ Storage below ground of 1yr ARI event within coarse gravel media (Basin A)
- ✔ Treatment to remove nutrients and fine sediment in a HydroCon – bioretention system

- ✔ Stormwater is disinfected with UV
- ✔ Automatic bypass mechanism on tank for certainty of supply
- ✔ Pumps to deliver required peak flows – charged lines to limit stop/starts

Significant detention is achieved in the system to alleviate flooding – STORM took advantage of this by placing bioretention systems in the base of detention basins to bring 100 year flows back to pre-20 year levels.

Detention occurs within large box culvert in addition to sub-surface and surface components of basins.

Mirvac determined that it was cost-effective to construct a centralised tank instead of tanks on each lot. Maintenance by the body corporate of one tank will be cheaper than maintenance of tanks on each lot.

Recycled stormwater is used for all toilet flushing, and all outdoor uses including irrigation of common areas.

The system meets 80% of the demand for outdoor uses and toilet flushing.

SYDNEY

Suite 3, 6 West Street
PYMBLE NSW 2073
T +61(0)2 9499 4333
F +61(0)2 9499 4311

ILLAWARRA

34 Alexander Ave
KIAMA DOWNS NSW 2533
T +61(0)2 4237 6770
F +61(0)2 9499 4311

EUROBODALLA

Unit 16, Capital Coast Centre,
Church Street,
MORUYA NSW 2537
T +61(0)2 4474 5573
F +61(0)2 9499 4311

MID NORTH COAST

Lvl 1, Suit 3, 64 Clarence St
PORT MACQUARIE NSW 2444
T +61 (0)2 6584 6470
F +61 (0)2 9499 4311

www.stormconsulting.com.au

