

Case Study: Walter’s Brook Restoration



▲ October 2013: Initial site conditions

Natural Area was contracted by the City of Vincent to undertake planning, design and on ground restoration works at Walter’s Brook, Banks Reserve. The brook had become degraded due to large sediment deposits washing in from drain outlets and severe bank erosion due to inappropriate alignment of the drainage channel (*pictured above*).

On-ground works followed restoration plans designed by Natural Area and Urban Serenity in 2013. Erosion in the area was mitigated with a combination of soft and hard engineered techniques. Straightening of the drainage channel with the installation of gabion walls and gabion mattresses to diffuse the impact of running water through the channel, thus reducing bank erosion. The installation of limestone spillway at the drain outlets, around the bridge and along the toe of the channel will help to reduce the impact of water flowing through the channel during high rainfall events. Sections of the bank were recontoured to create a low gradient slope; these banks have been covered in a biodegradable erosion control matting to prevent the establishment of weeds and to temporarily stabilise the soil whilst revegetation works establish. The maturation of these plants will help to stabilise the bank once the matting has deteriorated.

Works to date have involved:

- ▶ removing excess sediment from the channel
- ▶ recontouring the banks to create a suitable gradient
- ▶ installation of gabion walls and mattresses into the channel to mitigate erosion
- ▶ installation of a limestone spillway
- ▶ temporary fencing
- ▶ revegetation planting.



▲ March 2014: Installation of gabion wall



▲ May 2014