



LOW FLOW CHANNEL BANKS WITH INDIGENOUS PLANTING

Shared path and creek bank works in Vic Roads land subject to investigation and approval from Vic Roads

Construct 3 No in-stream rock riffles in base of low flow channel

Nom 13m wide meandering low flow channel with appropriate planting and scattered boulders to create natural waterway form and increase in-stream diversity. Refer Section A-A.

Proposed new road bridge crossing at Metherall Street subject to development planning.

## VIC ROADS SITE

45m wide waterway corridor

50m wide waterway corridor

New shared paths along Stony Creek connecting to existing path on southern side of Furlong Road

Rock lined expansion section to top of bank below existing Furlong Rd culverts (to be retained) to stabilise banks and dissipate flows

Scattered indigenous overstorey trees

Refer to section A-A at chainage 900

Planted channel benches and banks varying in width along the waterway

Indicative location of 2.5m wide pedestrian bridge, opposite Cary Street to create loop walking circuit along waterway and link to City West Water future development site

Potential to develop a capture and release program for remnant native Blue Tongue Lizards evident in existing waterway corridor.



INDIGENOUS BLUE TONGUE LIZARD FAUNA

Low flow inlet to pond and storage system

- All flows up to 2 m<sup>3</sup>/s are diverted via the rock riffle and culvert arrangement into the sediment basin. Once the sediment basin has reached capacity (top of extended detention depth) stormwater will begin to backwater the diversion culverts and overtop the rock riffle crest within the waterway, reengaging the waterway.

Picnic area with shelter, seats and tables providing spectacular views over wetland, water harvesting pond and sediment pond

Water harvesting pond

- Treated stormwater is gravity fed into the harvesting ponds for storage and reuse as required. A total useable storage volume of 4500 m<sup>3</sup> (4.5 ML) has been incorporated into design based on water balance modelling. The lower 0.5 m of storage has been reserved as permanent storage for aesthetics and survival of planted edge treatment.

VicRoads P. A.O.

Flood inflows to Retarding Basin during larger storm events

- The downstream section of waterway (adjacent to the southern harvesting pond) is designed to convey up to the 10 year ARI event. ARI events above this will side-cast into the retention basin and passively drown out the water quality and harvesting ponds.

2.5m wide sealed shared path suitable for maintenance access along both sides of the waterway

Overflow outlet



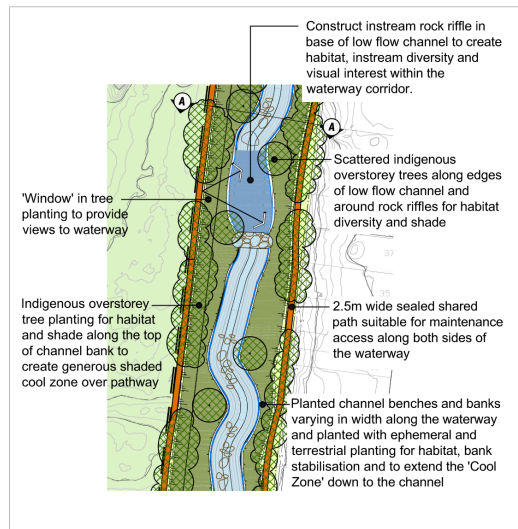
SHARED TRAIL WITH LARGE INDIGENOUS SHADED TREES FOR COMMUNITY ENJOYMENT



INTERPRETATIVE SIGNAGE OF STONY CREEK WATERWAY DESIGN

## DRAWING KEY

- Land Title
- 10m Wide Drainage Reserve Extension
- Potential 10m Wide Drainage Reserve Extension
- In flow to Retarding Basin during larger storm events
- Flows into, between wetland systems and to channel
- Hydraulic structures and low level protection bund
- Overstorey shaded trees
- 2.5m wide concrete shared path suitable for maintenance access
- Pedestrian Flow
- Vehicle Movement
- Picnic area
- Views of Water / Wetlands



DETAIL A: SHADED COOL ZONE  
NTS

Indicative Sediment drying area

- Large sedimentation pond to capture sediment
- Primary treatment of the diverted stormwater is undertaken in the sediment basin to remove coarse sediments. The sediment basin is contained within a low level bund (height equal to that of the downstream embankment spillway) which combined with the sediment basin outlet regulator will regulate inflow into the wetland and harvesting ponds.

Indigenous overstorey tree planting around top of retention basin to create habitat diversity, shading and 'Cool Zone'

Maintenance access to sediment pond from Gilmour Road

Seating and viewing area adjacent to sediment pond with small shelter and seats providing spectacular views over the wetland and sediment pond

- Water quality treatment wetland with shallow and deep marsh ponds
- Secondary treatment of the stormwater will occur through the wetland to remove the finer particulate pollutants. Due to the high frequency of inflows expected (a result of the highly urbanised catchment upstream) and to ensure survival of vegetation the wetland will consist of mainly shallow marsh ponds with limited deep marsh zones.

Island for bird refuge and habitat

Small seating areas on existing bunds overlooking water harvesting ponds

- Indicative water harvesting 'take off' point, pumping and stand pipe
- Stored stormwater from the harvesting ponds is collected via a submersed outlet, UV treated and pumped via a drainage network to required users. The pump and treatment shed with stand pipe is located adjacent to Gilmour Road to facilitate ease of access by council watering trucks.

Indicative parking bay for water collection truck

Overflow outlet (from harvesting pond into the channel at Gilmour Rd southern end) and Outlet control structure (at southern end of harvesting pond)

List-Group">

- Flood flow retained within the retention basin and overflow from the harvesting pond will be conveyed back into the waterway via the outlet structure.



INTEGRATED WETLAND PRECEDENT WITH OUTSTANDING ECOLOGICAL AND AMENITY VALUES

alluvium

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