

WHAT HAPPENS WHEN URBAN MEETS HIGH GROUNDWATER

SNAPSHOT - BRABHAM



9/8/25 Flooding to Shipley Ave, Brabham



17/12/25 Flooding over bridge to swale along Mayfield Drv, Brabham



17/12/25 Algae and pollutants to swale along Mayfield Drv, Brabham



16/4/26 Pumping out swale along Mayfield Drv, Brabham



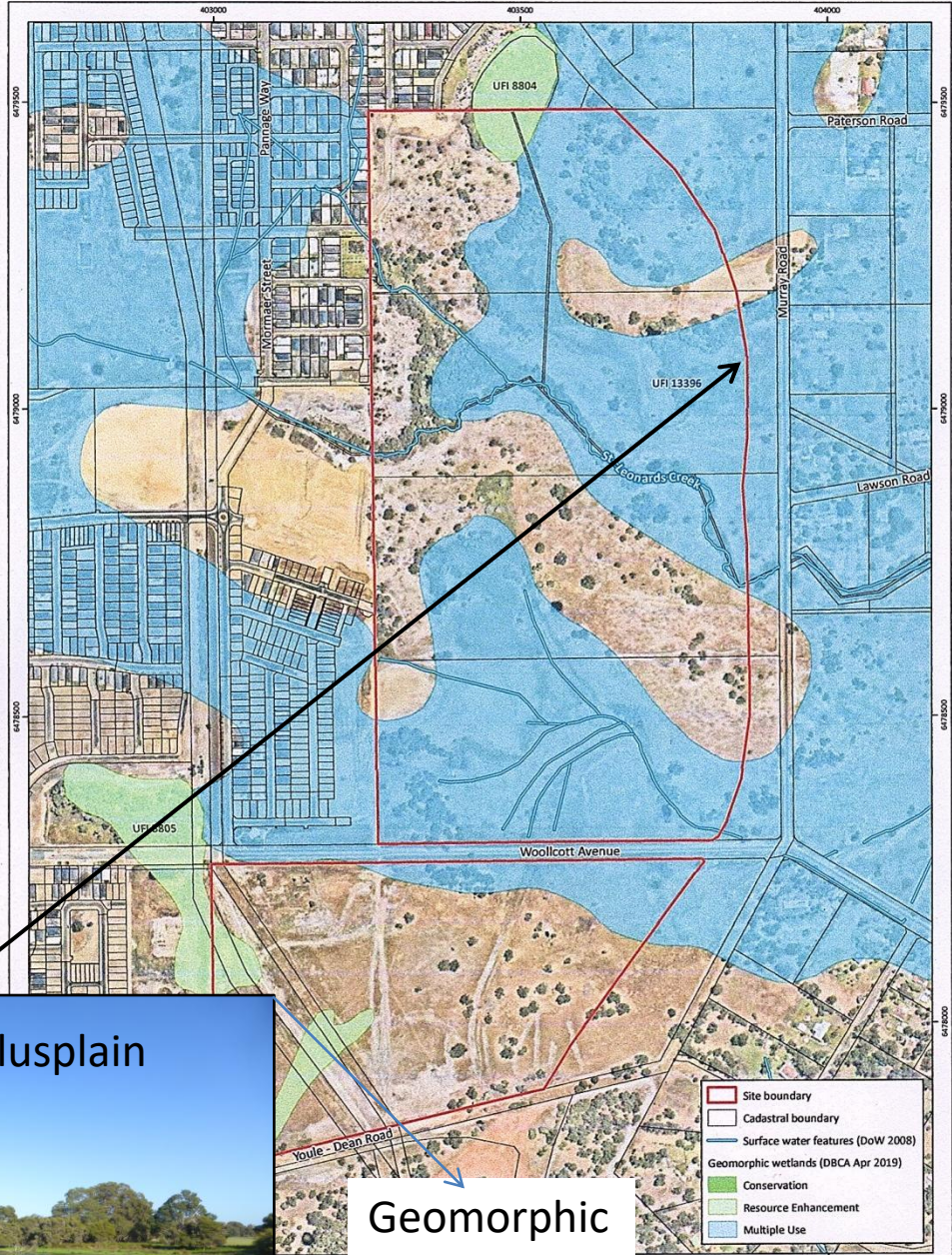
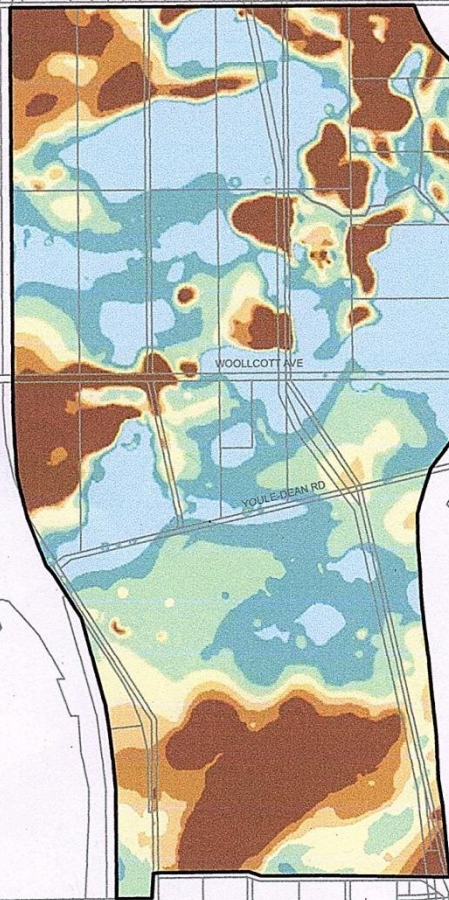
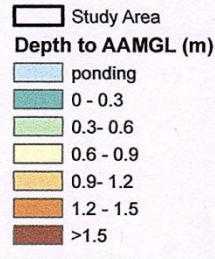
16/4/26 Trees in Watervalley Boulevard Wetland dying, Brabham

Friday, June 19, 2026

Caversham Memorial Hall, West Swan Road, Caversham



Pale blue = water
above ground



Murray Rd palusplain
UFI13396

Geomorphic
Wetlands,
Brabham

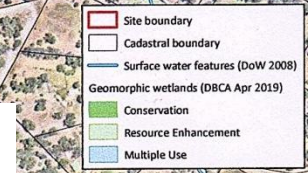


Depth to
Groundwater
Brabham

Data Source: Based on Fugro (2011)
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Job
Scal



et Limited
completeness of data, Emmerge accepts no responsibility for externally sourced data used

28/8/24



10/11/24



5/9/24



Wetland within
St Leonards Creek
at Murray Rd,
Brabham is part of
the plausplain
UFI 13396

11/11/24

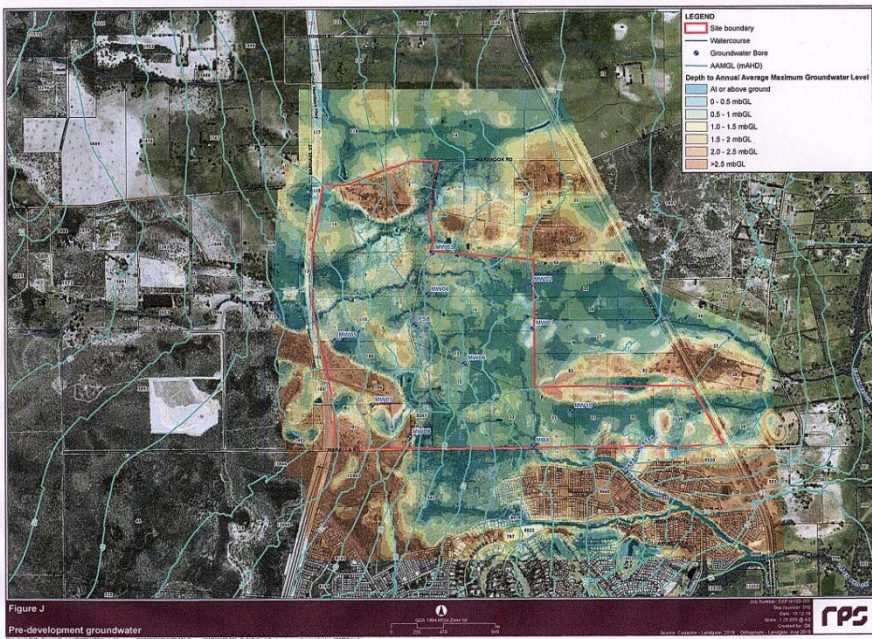


7/10/24

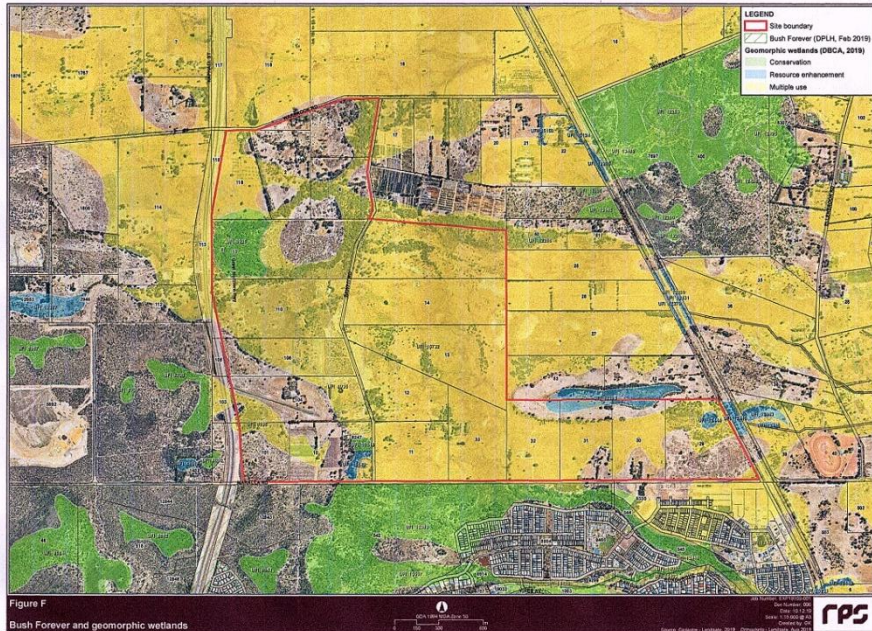
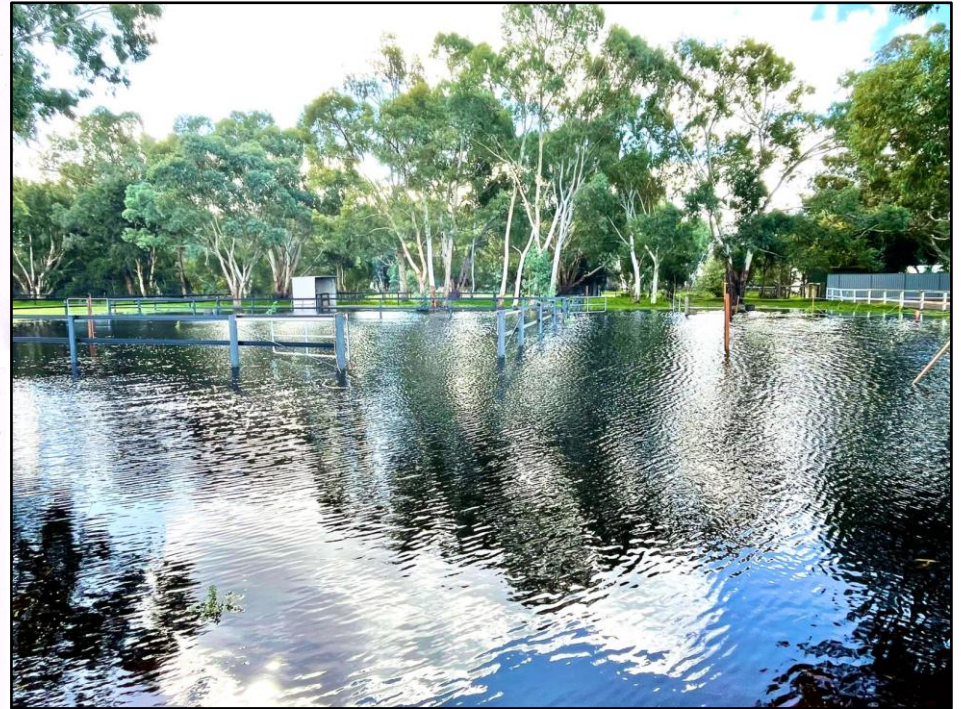


14/6/26





Depth to Groundwater North
Ellenbrook East
Dark green = at or above
ground level



North
Ellenbrook East
Geomorphic
Wetlands

Similar outcomes are likely
in similar conditions -
Flooding in rural land
abutting new urban in
Henley Brook 15/8/25



17/8/25



25/8/25

**Groundwater and roadside
stormwater, Arpent Link Park, Brabham**

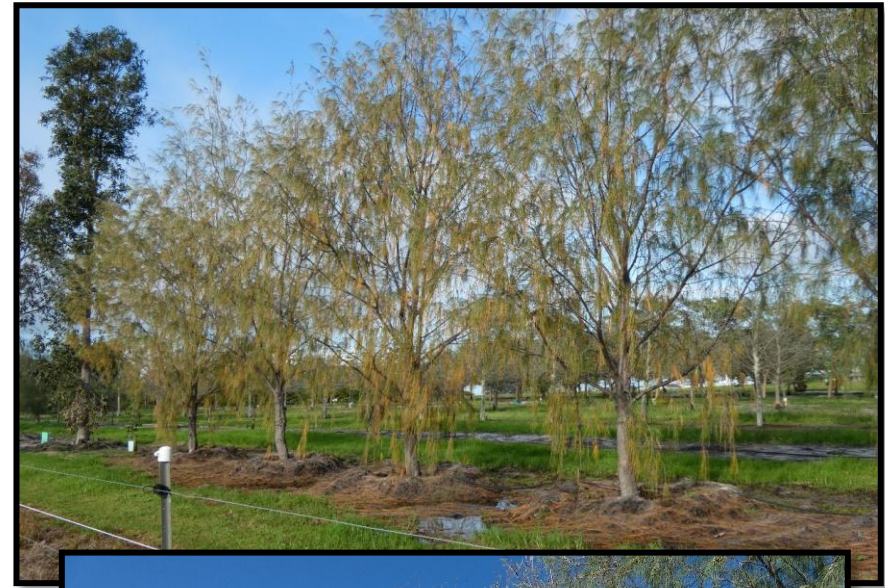


4/10/24



**Groundwater discharging from
Telecommunications Pit, Filip Way West Swan**





Flooding in Dayton and adjacent rural West Swan
**Further stormwater can't be infiltrated
as soil is already at capacity**



Above: Trees on tree farm in West Swan
350m from Dayton LSP 4 failed drainage
infrastructure - waterlogged in August
2024, dead in March 2025



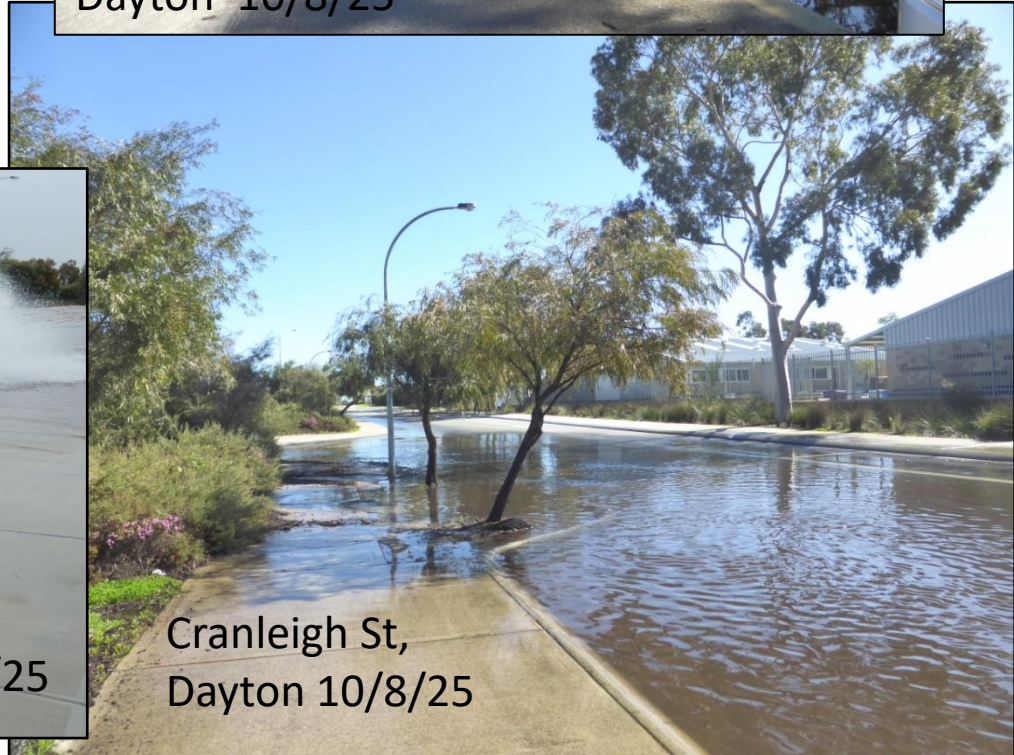
Mayfield Drv,
Brabham 9/8/25



Citrus Ave,
Dayton 10/8/25



Woollcott Ave,
Brabham 22/6/25



Cranleigh St,
Dayton 10/8/25

SIGNIFICANT FLOODING IN URBAN AREAS PERSISTS



51 Robert St 15/2/26

Mature tree in rural property due east of new urban toppled Feb 2025. Ground was inundated from Sept 2025 till mid Feb 2026



91 Robert St 17/9/25

“I understand DWER actively encourages the State’s planning and development agencies, regulatory bodies, infrastructure managers, and service providers to adopt sustainable urban development practices across WA. These approaches aim to ensure that urbanisation does not adversely impact water resources and maintains the pre-development hydrologic regime, including maintaining pre-development groundwater levels.’

Hon Don Punch MLA

*Minister for Aboriginal Affairs; Water; Climate Resilienc; South West
14 October 2025*

Maintenance of pre-development hydrologic regime and pre-development groundwater levels are not occurring in the Swan Urban Growth Corridor.

'To maintain the hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance, are protected.'

EPA Objective

Environmental and Justification Report

Brooklands Scheme Amendment (Emerge Assoc 2015)



Flooding in rural Henley Brook due east of new urban
Sept 2025

***This objective is not being achieved
anywhere in the Swan Urban Growth
Corridor.***





Brabham Stage 2 Murray Road,
Brabham (top & above)



Brabham Stage 2 Woolcott Ave, Brabham

Millions of tonnes of imported sand fill has been trucked into the Swan Urban Growth Corridor. Some areas have up to 4m of fill.



Trees dying in tree farm,
West Swan



Flooded arena of Rural
Business, Henley Brook



Flooded vineyard, Caversham

Rural businesses are being devastated by rising groundwater and flooding associated with urban development



The costs and skills required to manage wetlands and other treatment devices are significant





Whiteman Edge drainage infrastructure west of Mayfield Drive, Brabham



Reports indicate that there have been incidences of flooding along this drainage infrastructure for the last six years. The main drain extends from Heisler Park in the north to Blackmore Loop Park in the south. All, except one short section, was completely inundated and discharging through a road grate until late December 2025.

Water quality is exceptionally poor.



‘To maintain the quality of groundwater and surface water, sediment and biota so that the environmental values, both ecological and social are protected.’

*EPA Objective
Environmental and Justification Report
Brooklands Scheme Amendment (Emerge Assoc 2015)*

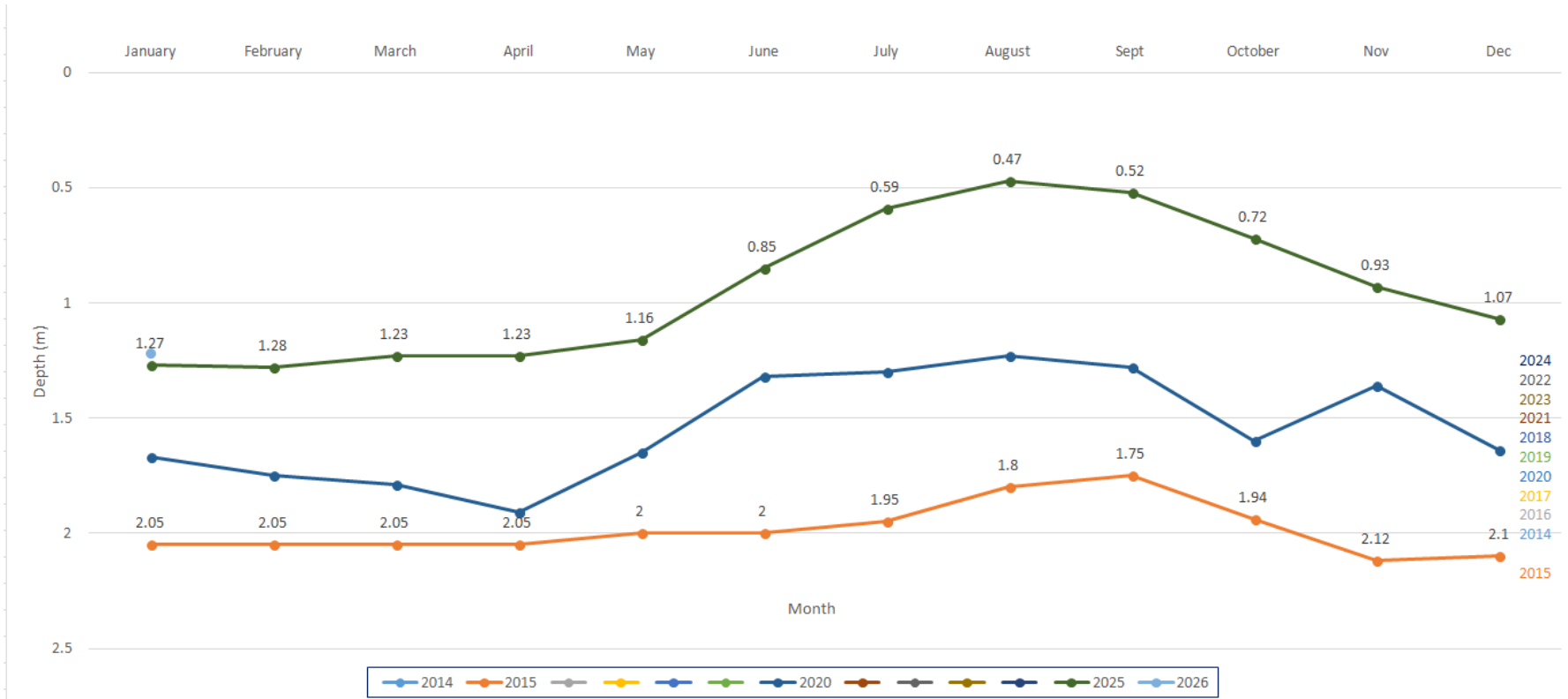
This objective is not being achieved in anywhere in the Swan Urban Growth Corridor.



Inundation of trees in 'Tree Pits' and poor planning has resulted in the death of trees across Dayton, Brabham and Brooklands - Henley Brook

Groundwater levels Tree Farm on eastern side of Malvern St, Dayton (due east of urban development)

Depth to Groundwater Station 4 Tree Farm
5 yearly readings



Bore 4

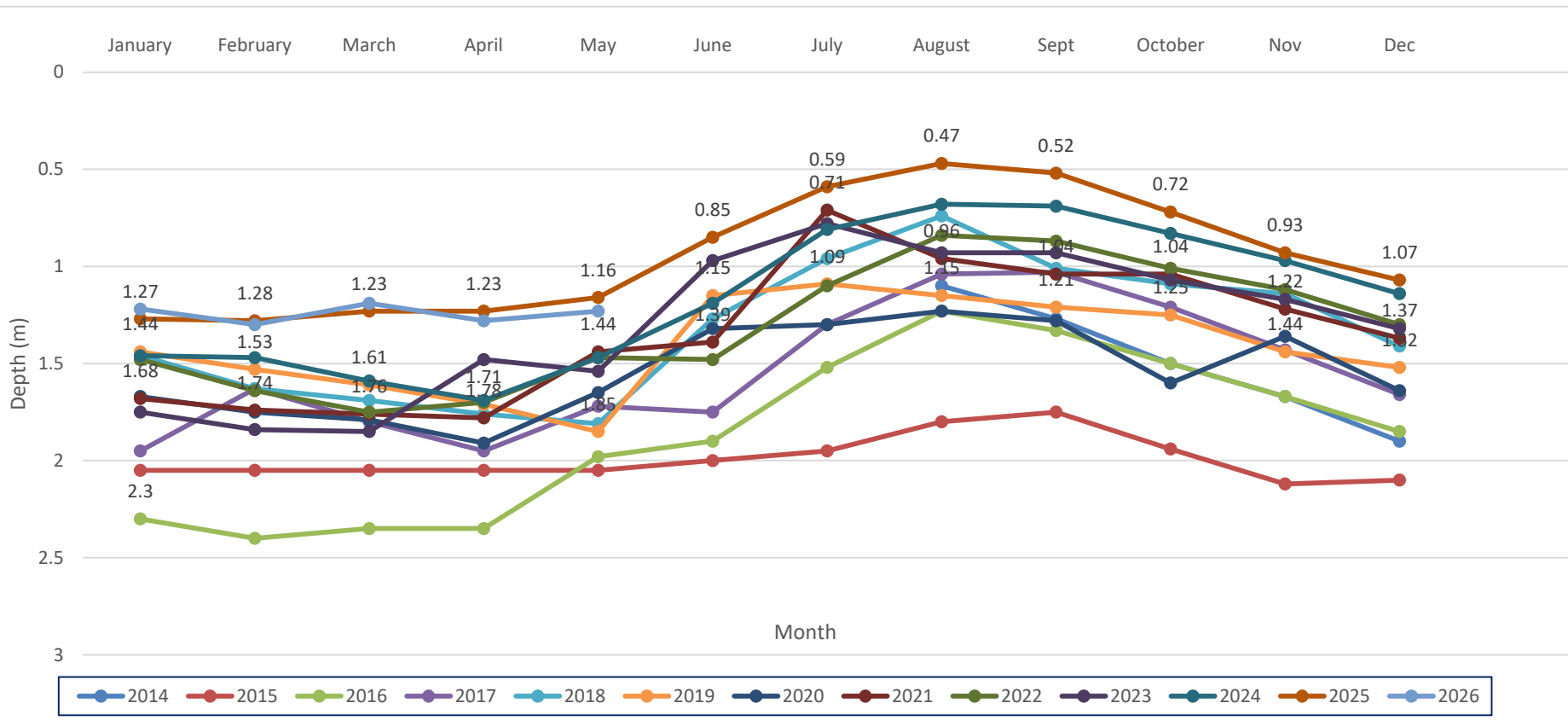
Readings taken monthly, on last day of each month. The higher the point is towards the top of the graph, the shorter the distance from ground surface to groundwater. August 2025 read 25/8/25.

Note upward trend over time.

numbers recorded in red dry at this depth. water level is lower.

Groundwater levels Tree Farm on eastern side of Malvern St, Dayton (due east of urban development)

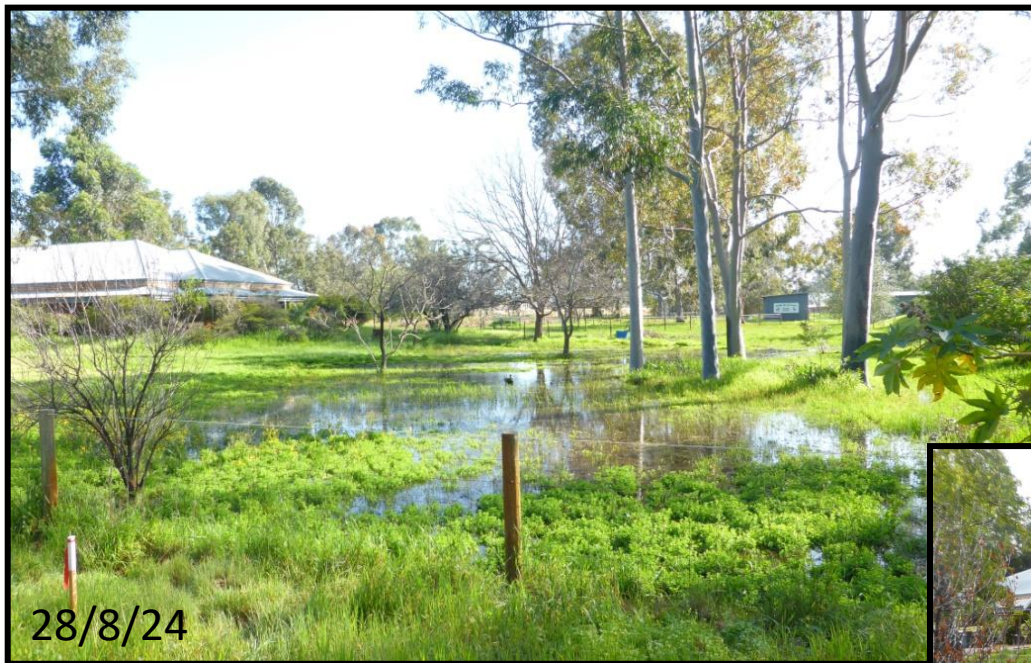
Depth to Groundwater Station 4 Tree Farm yearly readings



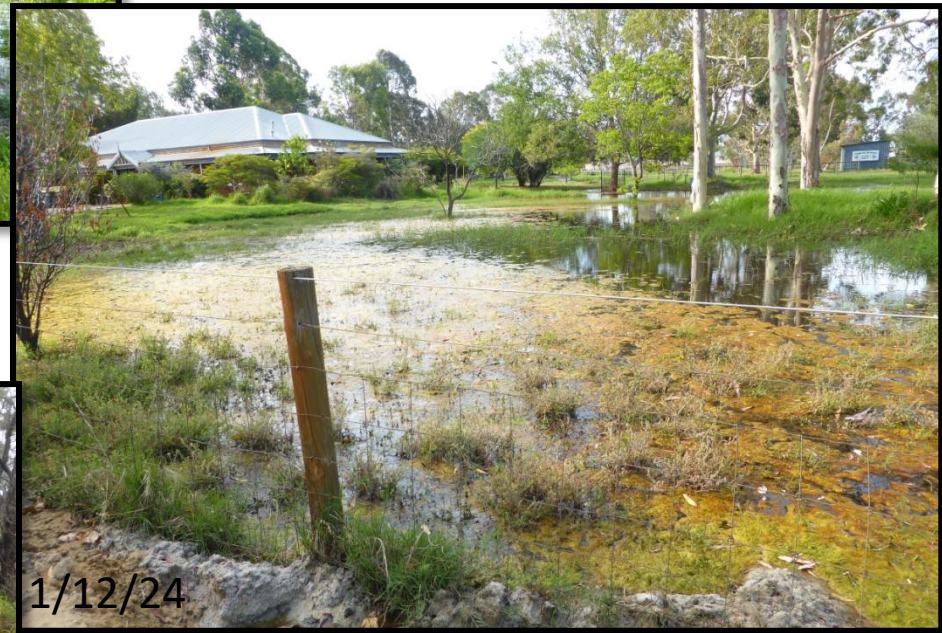


**New wetland developed since NE Dayton commenced.
Only 350m separates them**

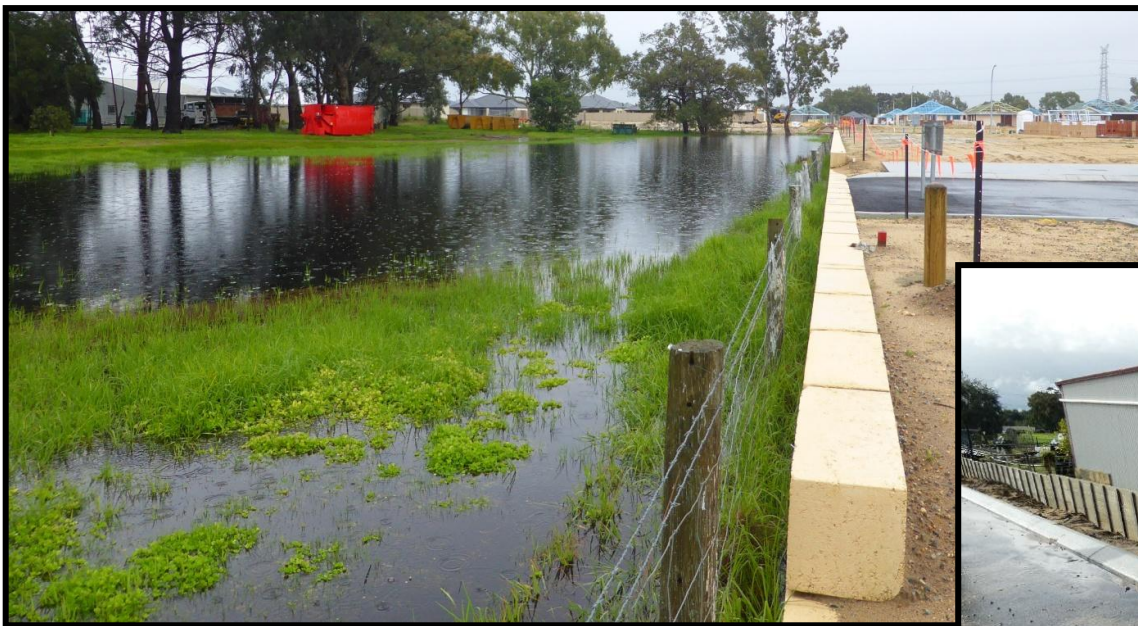




236 Park St, Henley Brook was inundated from August till late December in 2024 and inundated again in 2025.



2024 was a lower than average rainfall year
2025 saw a return to 30 year average
rainfall for Perth



Flooding in rural West Swan and Dayton adjacent to new urban June and July 2025



Rural properties on east and west of Dayton LSP 1 flooded due to urban development



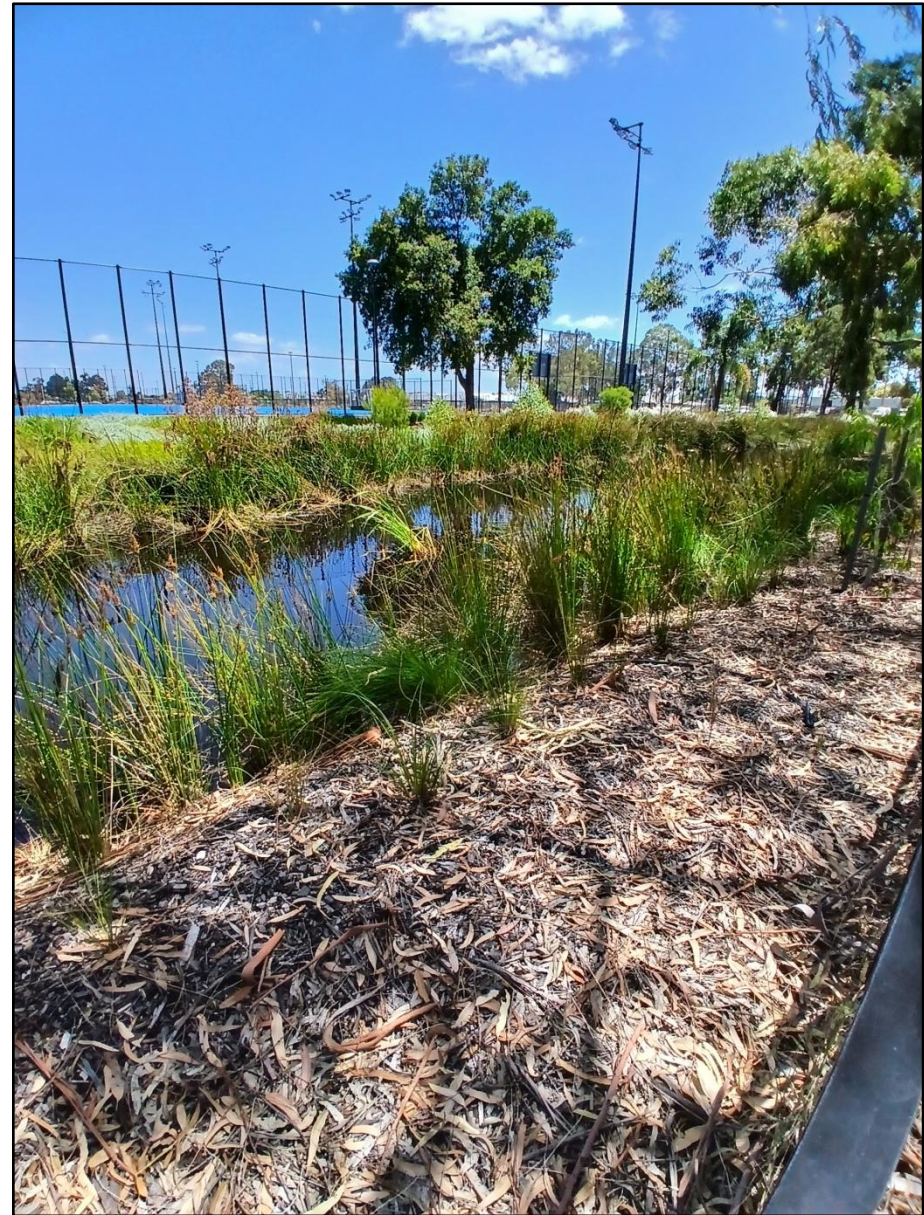
Henley Brook Primary School –
Flood Storage Area around the Oval
in POS 10 has been inaccessible from
the beginning of August 2025 till the
end of January 2026



**'Infiltration' fails to deliver in
areas of high groundwater.**



**Between November and May detained
immobile stormwater is required to be
fully infiltrated within 96hrs.
Better Urban Water Management**



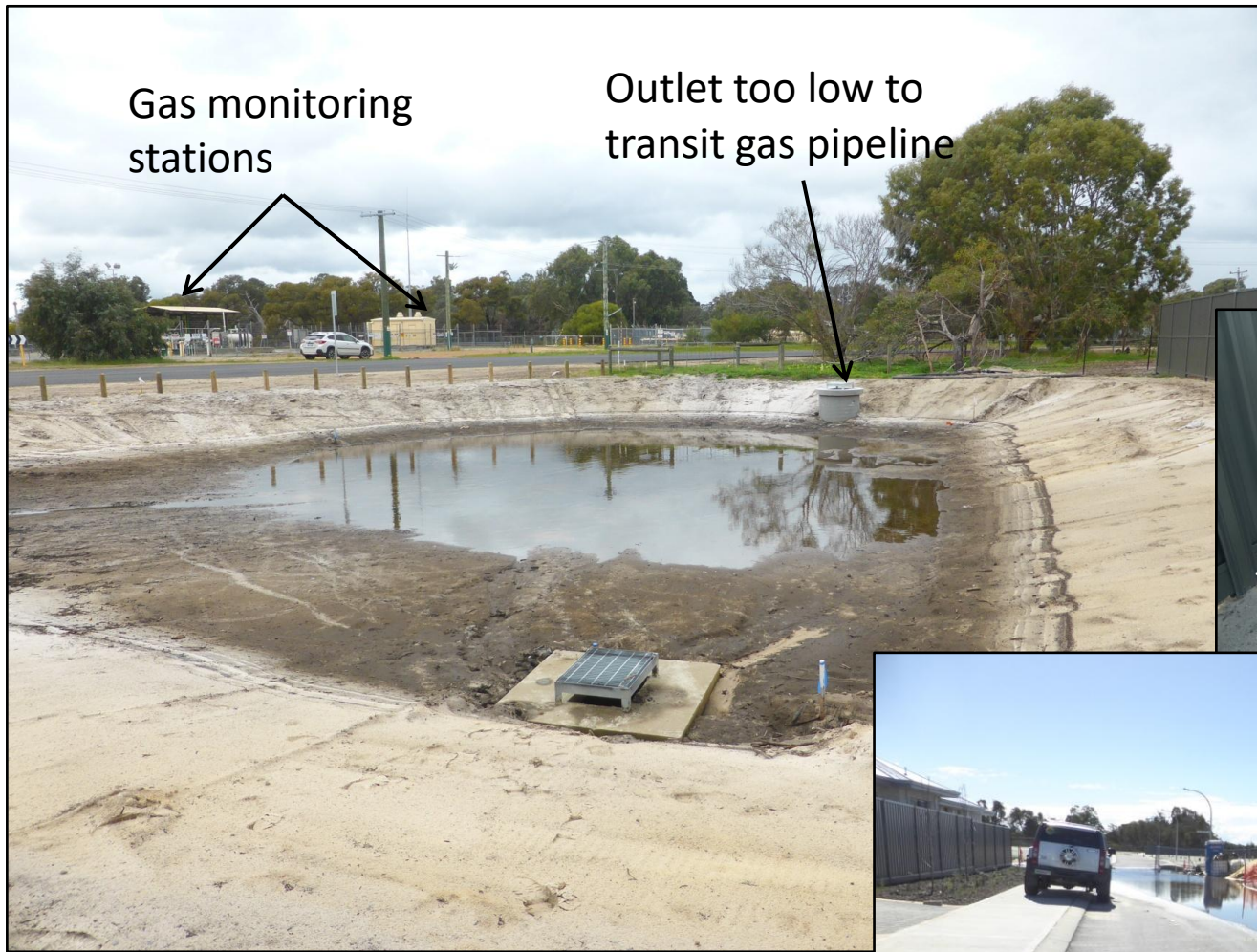
Swales and bioretention basins to Woolcott Ave, Brabham (above) and Queensbury Drv, Dayton (right) are a portion of hundreds of kilometers Water Sensitive Design devices in new urban

7 Prickley Barks (*Euc totdiana*) intended to be retained in POS 1, Brabham Stage 3, dead due to continuous inundation. Drainage from Brabham Stage 1 is piped under Youle-Deal Rd and discharged directly onto the ground (see below).



Brabham can't be called sustainable when the drainage doesn't work.





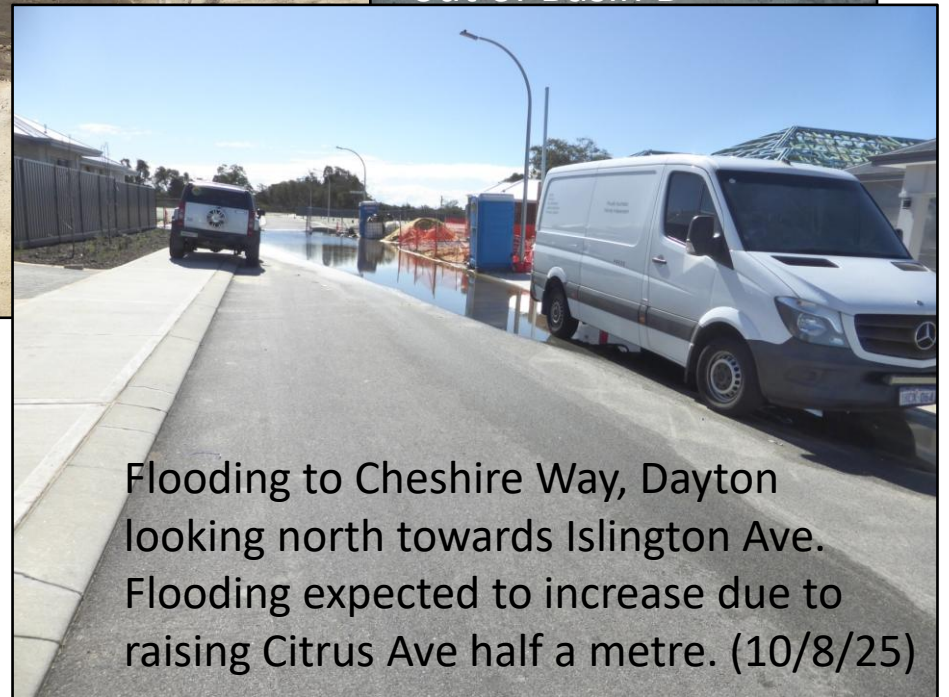
Gas monitoring stations

Outlet too low to transit gas pipeline



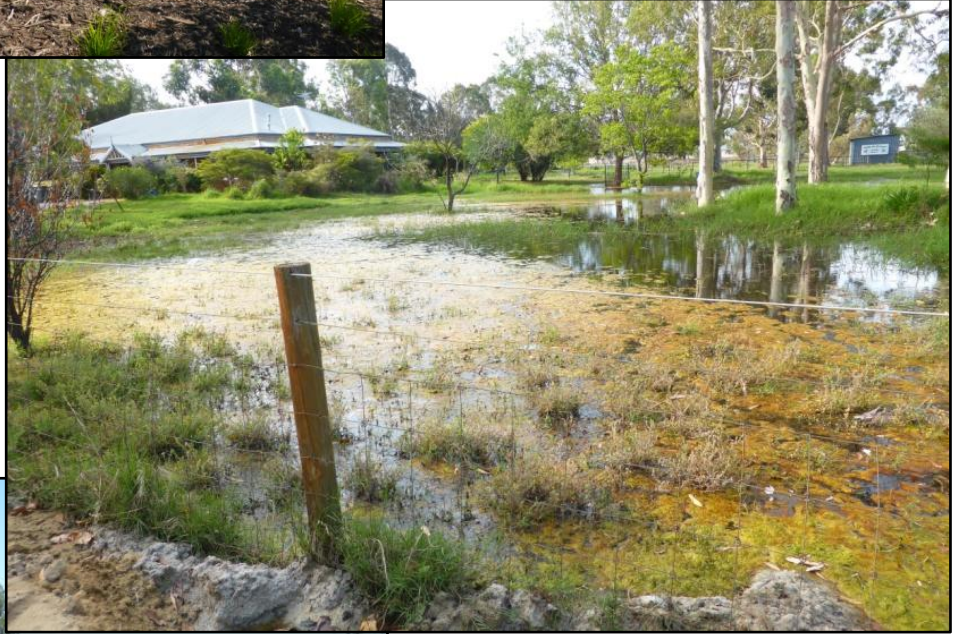
Pump required to move water out of Basin B

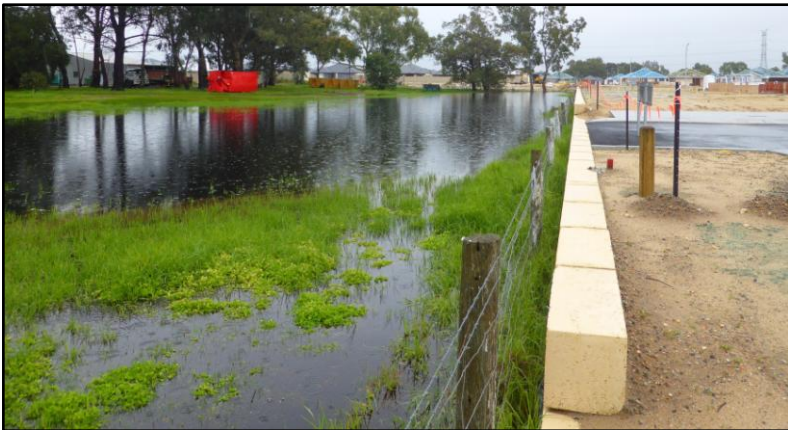
Basin B in NE Dayton squeezed in on a dogleg bend. Requires mechanical movement of discharge because designer failed to recognise outlet would have to transit over the Dampier to Bunbury gas pipeline.



Flooding to Cheshire Way, Dayton looking north towards Islington Ave. Flooding expected to increase due to raising Citrus Ave half a metre. (10/8/25)

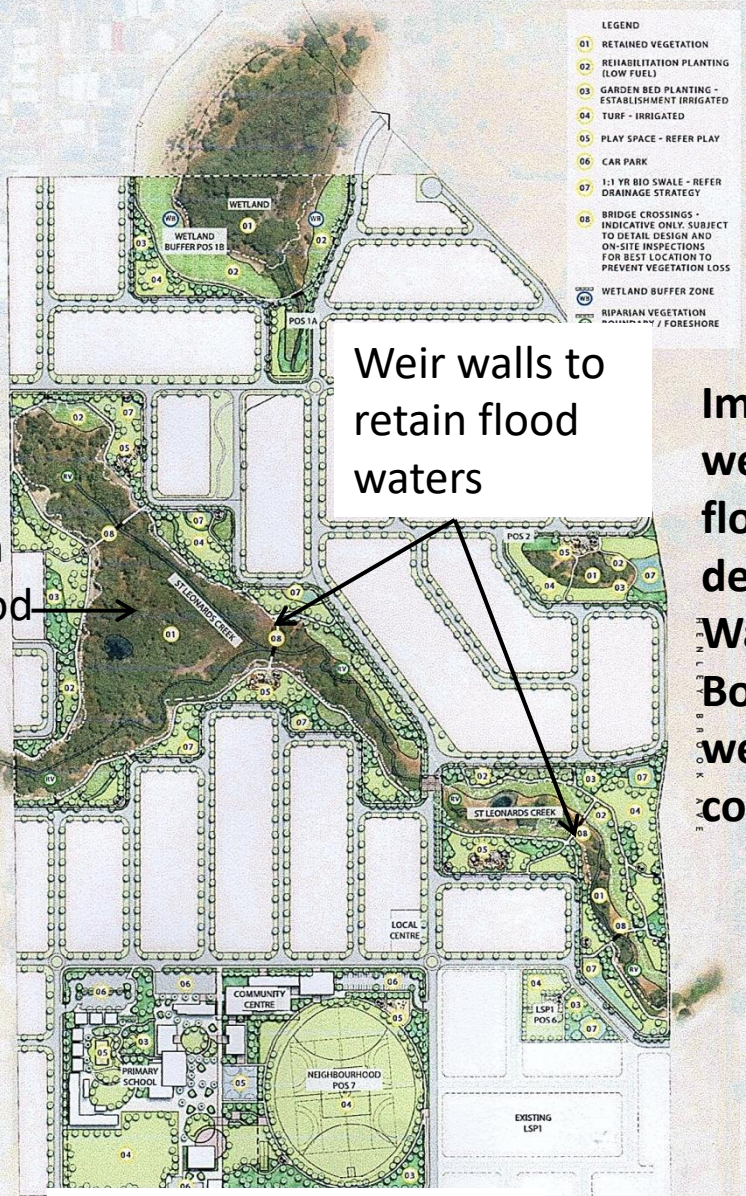
Regular significant algal blooms occur in inundated areas as temperatures rise





**Pannage Wetland, the last
Conservation Category Wetland in
Brabham threatened by urban
development, local distributor
road and deep sewer line.**





Vegetation in very good condition

Weir walls to retain flood waters

Impact of using wetland as flood mitigation device –
 Watervalley Boulevard wetland is collapsing





Drainage
from
western
portion of
Brabham

Horse Swamp: Photos taken
5/5/26 before rain



Drumpellier
Drive,
Dayton

**Without limitations to the amount of water
entering Horse Swamp it will collapse like
Watervalley Boulevard wetland.**



Drainage
entering
from the
east



Horse Swamp looks better than
ever but there's a limit.
How is the tap switched off?



Watervalley Boulevard, Woollcott Ave, Brabham : A Resource Enhancement Wetland that was supposed to be rehabilitated. The wetland has been used dammed and as a flood storage area. After 15 years it is slowly collapsing. Trees are dying, algal blooms are becoming more prolific, odour levels are rising and mosquitoes breeding.