



North West corridor water supply strategy

What is the water strategy and why do we need it?

Water is an increasingly scarce resource across the Perth metropolitan area, with rainfall, groundwater-recharge and dam inflow all declining markedly since the mid 1970s. This has coincided with growth in Perth's urban footprint, population and demand for water, including for irrigation of public open space (POS).

The North West urban growth corridor is a 9000 hectare area of future urban development located along the coast from Quinns Rocks to Yanchep. It will require a significant volume of local water to meet POS needs.

Given the scarcity of water, a water strategy has been developed to ensure the orderly and equitable allocation of shallow groundwater resources to developers and future licensees (primarily the City of Wanneroo) in the corridor.

The strategy arranges for sufficient water to support the creation of playing fields and public open spaces for community sport and recreation.

It ensures water the government has set aside for this public open space is shared equitably among the communities.

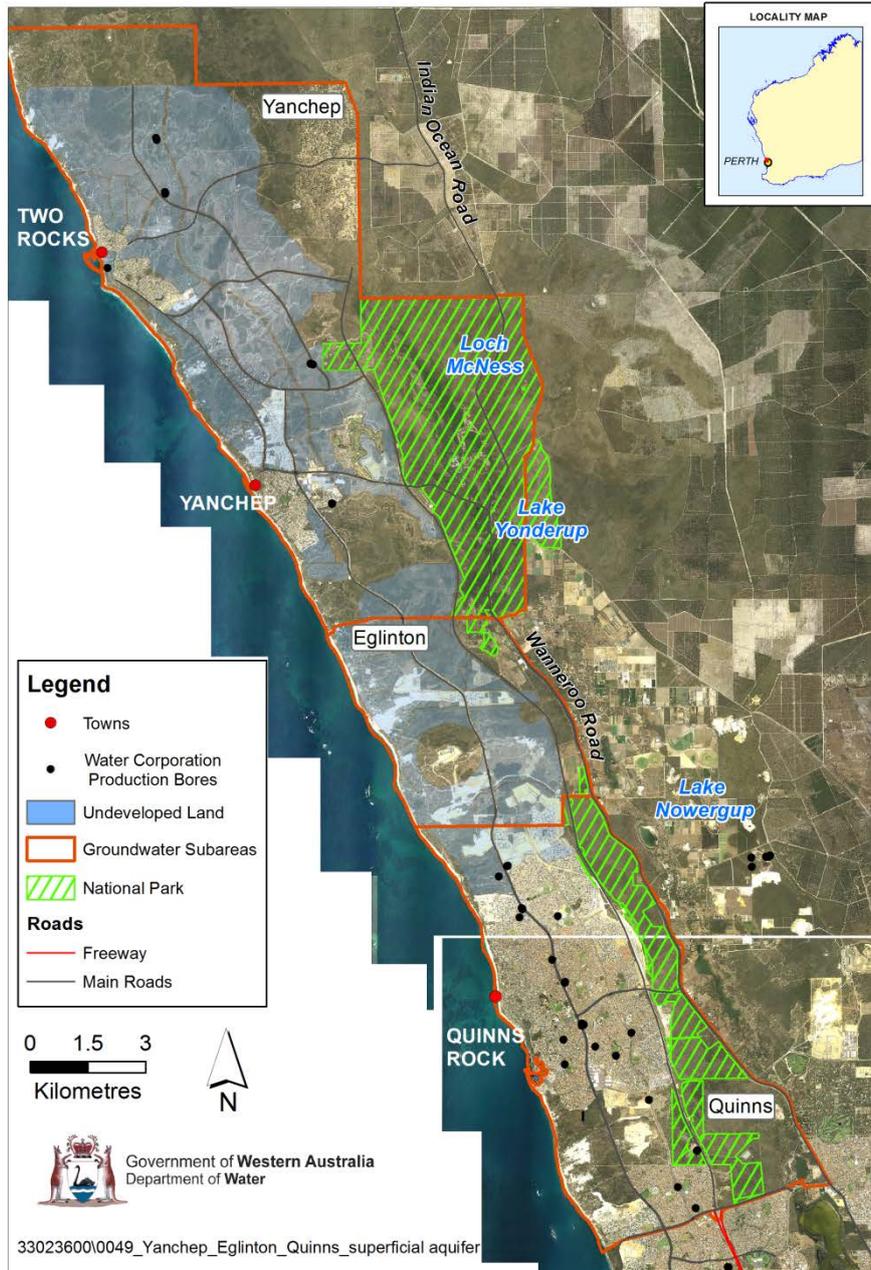
It supports water sensitive urban designed communities that minimise water use on non-active open space areas such as verges and streetscapes and maximise water use on active turf areas needed for sport and recreation.

The strategy ensures we provide groundwater for essential public parkland at maximum efficiency, while also maximising the volume of shallow groundwater available for public water supply.

Local wetlands with high social and environmental value, and managing inland movement of the salt water interface at the coast have also been accounted for.

The strategy uses a schedule to set a volume of water that individual developers will be able to access from the Quinns, Eglinton and Yanchep groundwater subareas to meet all essential POS requirements. The remaining balance of water is reserved for public water supply.

The schedule has been developed in conjunction with the City of Wanneroo and other stakeholders in the corridor.



What is the status of water availability in the North West urban growth corridor?

Our first step in developing the schedule was to review water availability in the corridor. Existing allocation limits, including the volumes of water reserved for public water supply, were unproven and potentially too high. This was because the allocation limits were set using a regional scale model that was not well calibrated in that area.

Our review, in which we accounted for both the drying climate and increased runoff from urbanisation, demonstrated that significantly less water was available in the Quinns and Eglinton subareas.

How did we develop the schedule?

To provide essential public parkland at maximum efficiency and ensure the orderly and equitable allocation of water in the corridor we had to:

- set new design criteria for public open space (see table below)
- apply a reduced irrigation rate of 6750 kL/yr/ha (average rate across all irrigated areas).

Design criteria		
Type of POS	Description	% of site area that is irrigated
Active	*Regional/ District playing fields	64%
	*Neighbourhood playing fields	59%
Passive	Pocket parks	33%
	High schools/ Primary schools	30%
	Streetscapes/ Entry statements	Establishment only

* preferably co-located with schools

Both the design criteria and reduced irrigation rate are based on:

- low water use examples in the City of Wanneroo and surrounding LGAs
- hydrozoning principles
- eliminating irrigated areas where possible (e.g. streetscapes, entry statements).

Other passive areas associated with hospitals, universities, TAFEs and industrials have had small volumes of water allocated to them as well.

We were able to calculate a total volume for all active, passive and other POS areas for each developer and long term licensee using:

- the design criteria and irrigation rate described above
- approved structure plans and the Metropolitan Regional Scheme
- City of Wanneroo planning policy.

We have also allowed in all cases two years of water for establishment purposes.

The volumes in the schedule do not relate to water for dust suppression or construction purposes. Following our standard assessment and approval process, the Department of Water may issue these licences as short term, non-transferable licences.

Who did we consult when developing the schedule?

The Department of Water and City of Wanneroo consulted with all key stakeholders in the North West urban growth corridor when developing the schedule. This included other government agencies, developers, Water Corporation, the Urban Development Institute of Australia and consultants.

The schedule and the methodologies used were tested by a significant developer in the corridor before we consulted more widely. We invited developers and their consultants to a presentation in June 2013 to discuss how and why we developed the schedule and how it would be implemented. We also presented at the Urban Development Institute of Australia conference on Public Open Space also held in June 2013. In both instances the approach being taken by the department and the City of Wanneroo was well received.

We are continuing to work with developers and their consultants to implement the schedule.

How will the process work?

The Department of Water and City of Wanneroo have begun to implement the schedule. Developers (and their consultants) are expected to consult with both organisations as early as possible to ensure that all the requirements for assessment are met and to avoid delaying the approvals processes.

The City of Wanneroo is amending their *Local Planning Policy 4.3: Public Open Space* to include the new design criteria and irrigation rate outlined above. Local water management strategies, urban water management plans, and landscapes designs will need to demonstrate compliance with the design criteria and licensing schedule.

The Department of Water will assess all water licence applications, and existing licences as per the requirements of the *Rights in Water and Irrigation Act 1914* and issue the licences consistent with the design criteria and schedule.

To view the schedule and find out how much water is available to you, or to discuss how your volume of water was calculated, please contact the Department of Water's Swan Avon Region on (08) 6250 8000.

For queries regarding City of Wanneroo requirements please contact them on (08) 9405 5000 or visit their website - < www.wanneroo.wa.gov.au >.