



# Being Smart with Water

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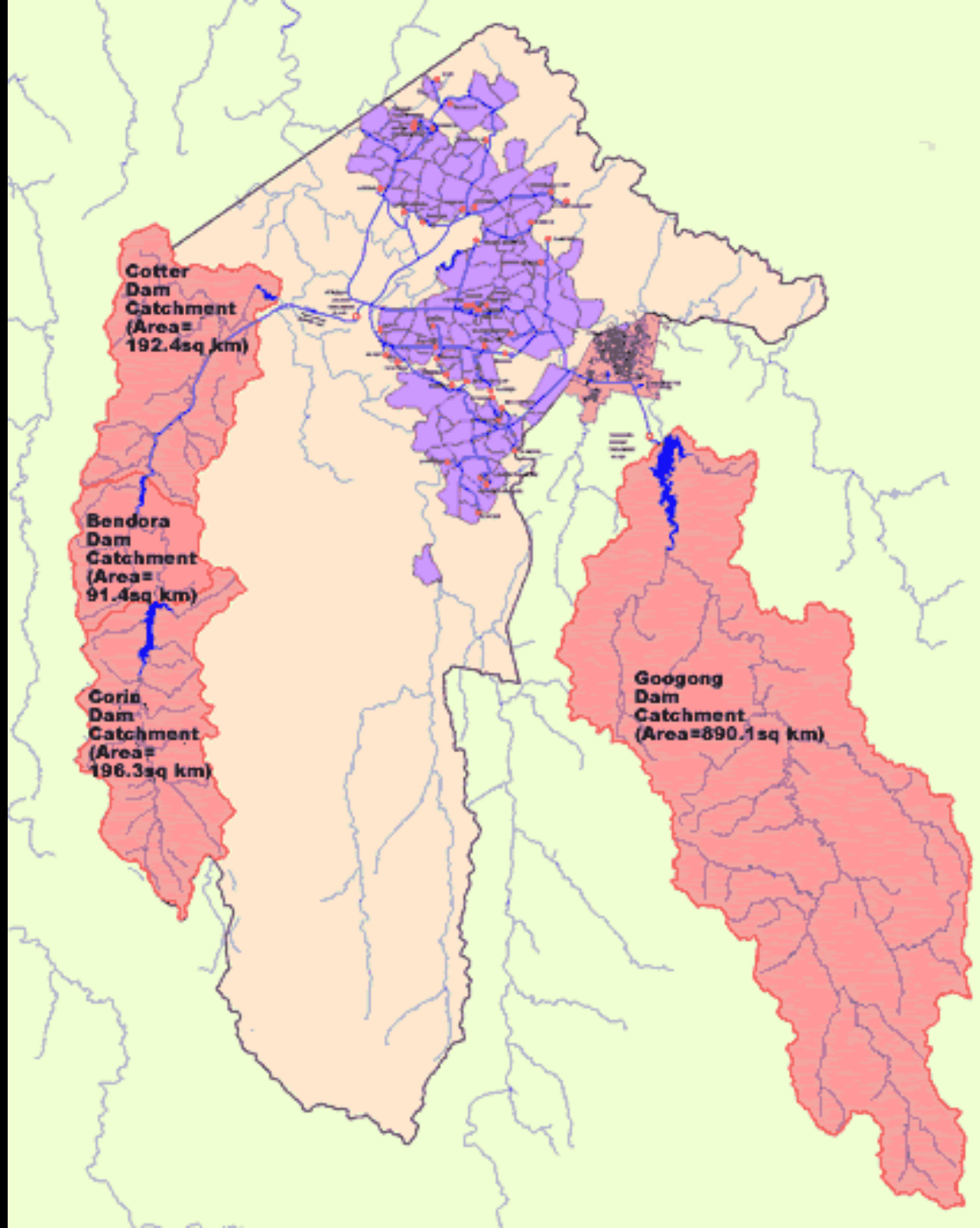
\*Ian Lawrence, Peter  
Liston



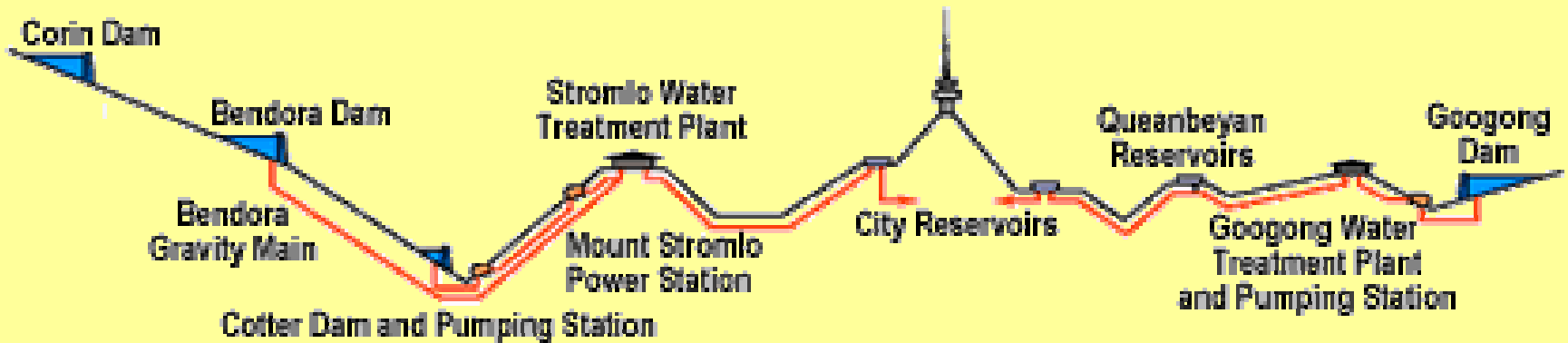
COOPERATIVE RESEARCH CENTRE FOR  
**FRESHWATER ECOLOGY**

# Being Smart with Water:

- Holistic approach to land & water
- Catchment as the template
- Start managing water as close to source as possible
- Drainage water is a resource
- Water Sensitive Urban Design to guide development



# ACT's water supply system



# CATCHMENT

```
graph TD; CATCHMENT --> BLD[Buildings & landscape  
Building function, form & amenity values]; BLD --> BKS[Blocks, streetscape & neighbourhood  
Landscape, recreation & amenity values]; BKS --> SCUW[Sub-catchment urban waterways  
Landscape, recreation, conservation & amenity values]; SCUW --> RW[Regional waterways  
Conservation, landscape, recreation, & amenity values]; RW --> CATCHMENT;
```

## **Buildings & landscape**

**Building function, form & amenity values**

## **Blocks, streetscape & neighbourhood**

**Landscape, recreation & amenity values**

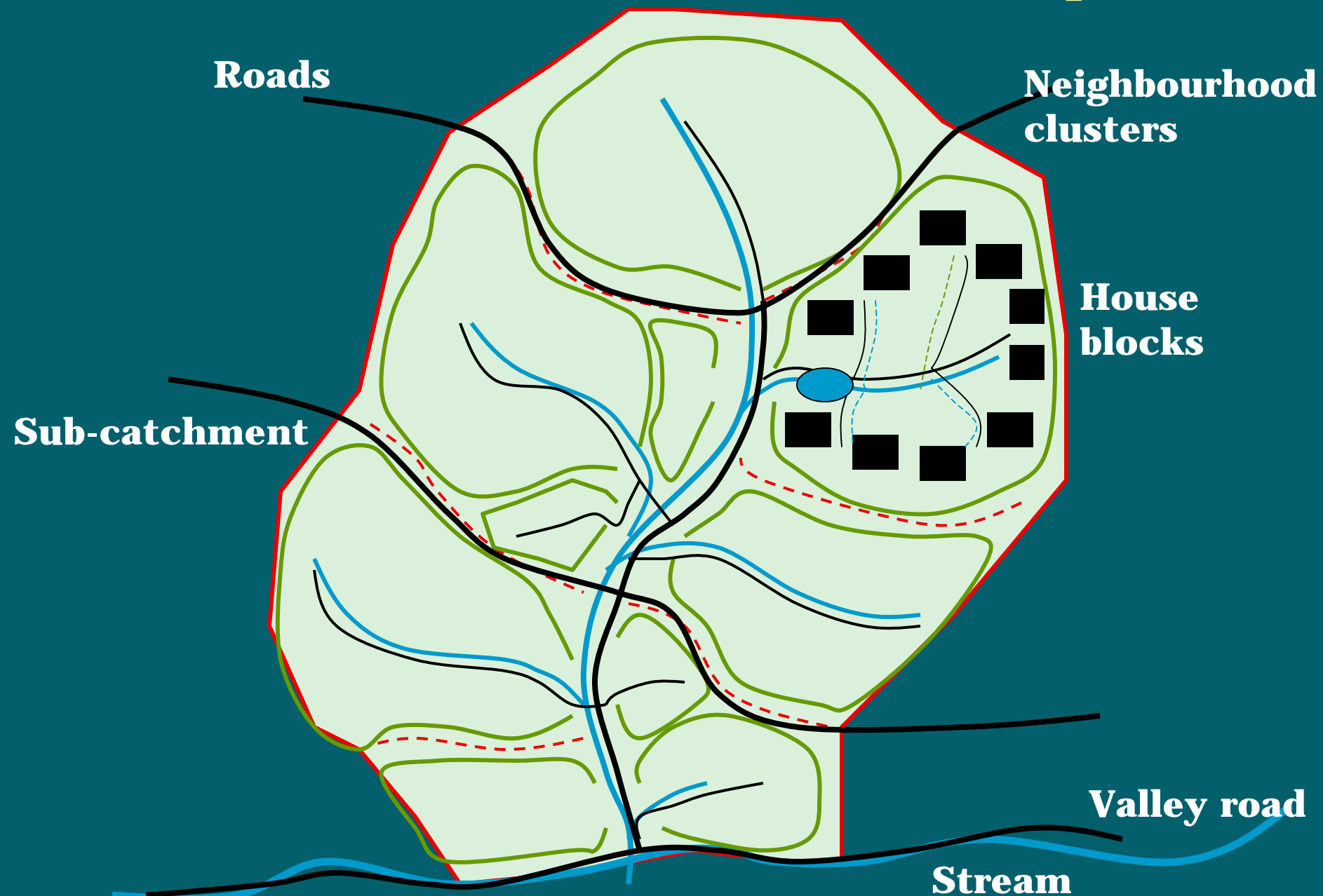
## **Sub-catchment urban waterways**

**Landscape, recreation, conservation & amenity values**

## **Regional waterways**

**Conservation, landscape, recreation, & amenity values**

# WSUD: Catchment as the template



**WSUD:  
Starting  
from source  
– backyard**



Disconnect gutters

# Create permeable surfaces





# Create permeable surfaces



# Extended detention backyard wetland



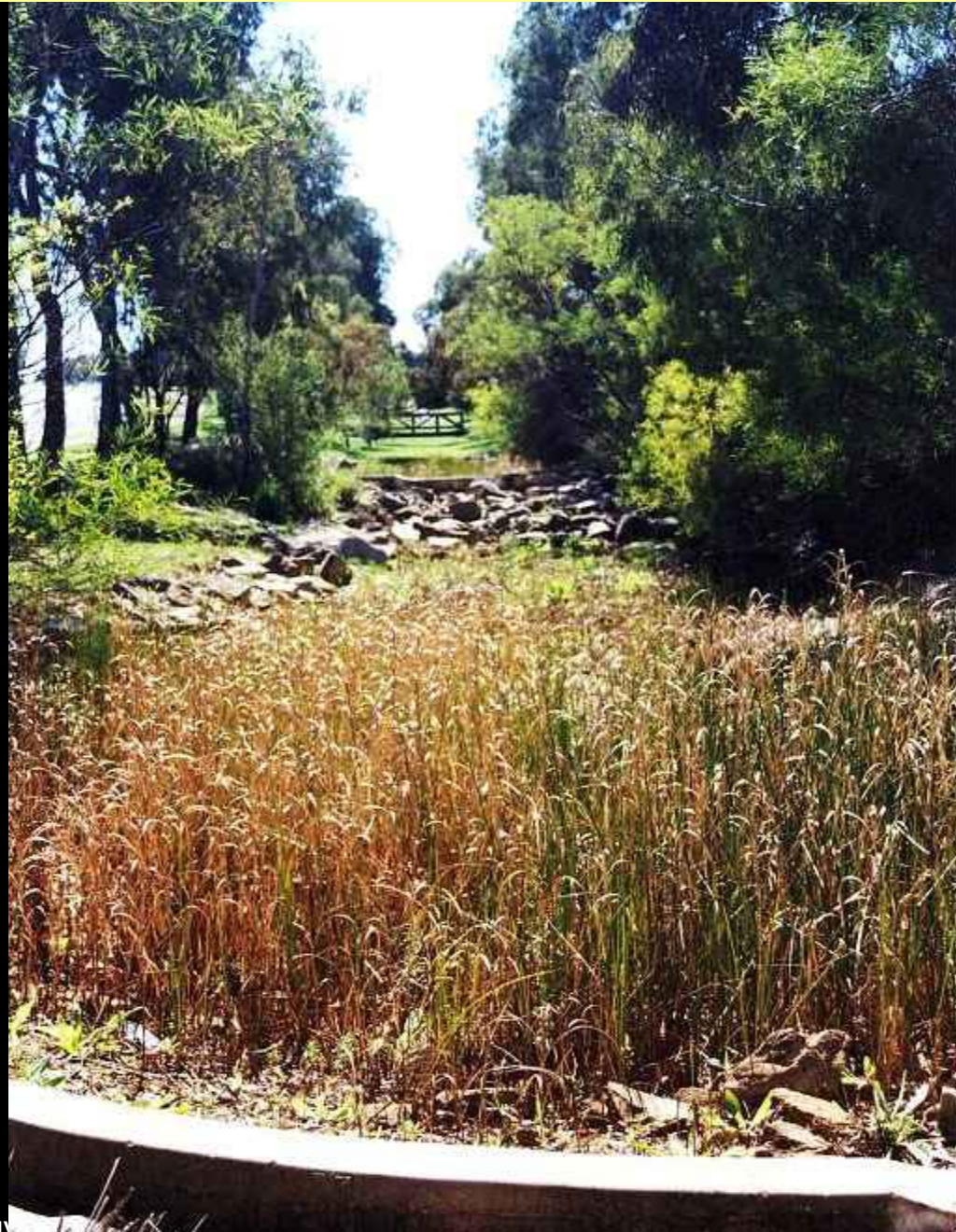
# Low water use native gardens



# Neighbourhood wetland detention basins



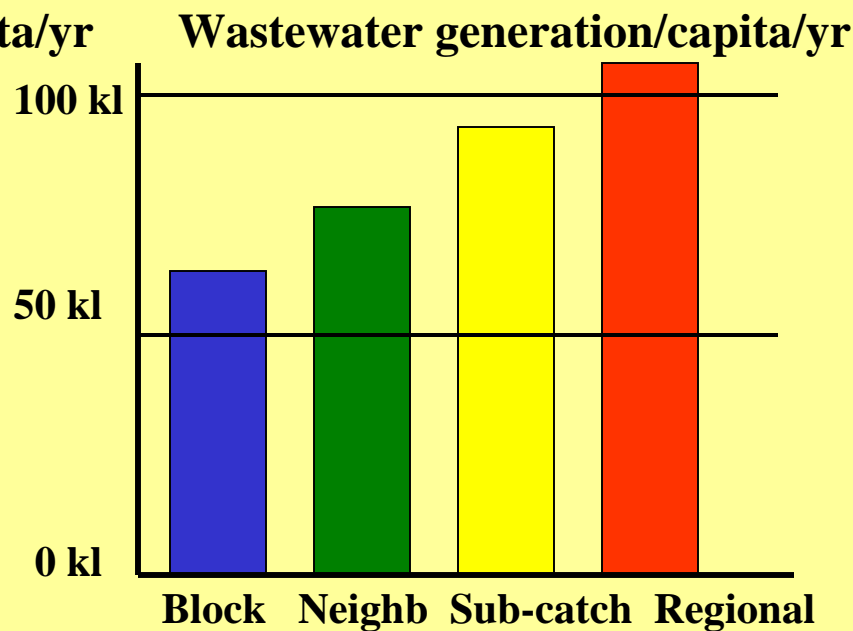
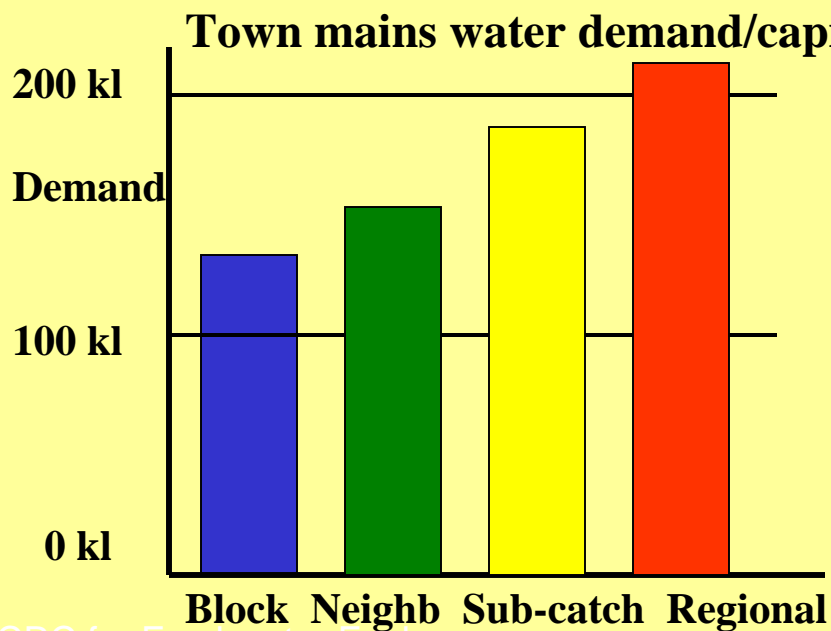
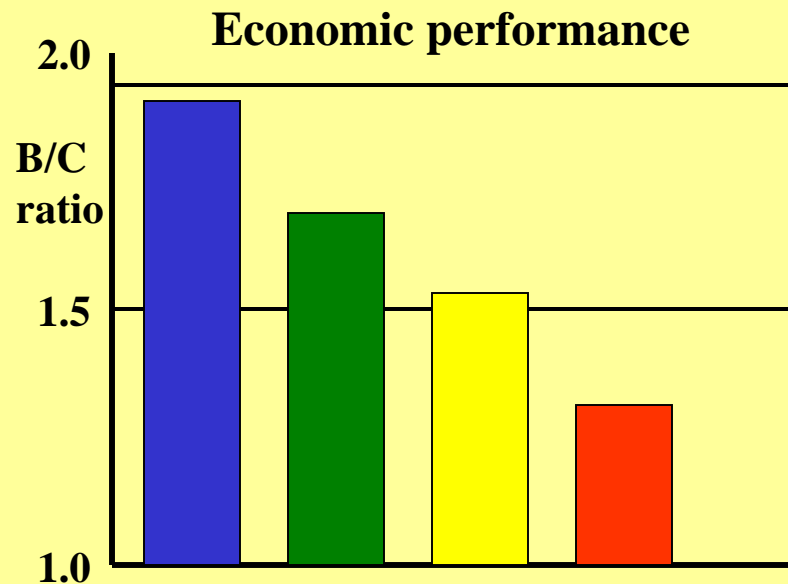
# Neighbourhood wetland channel grove



# Neighbourhood vegetated swales



# Performance of urban water management strategies

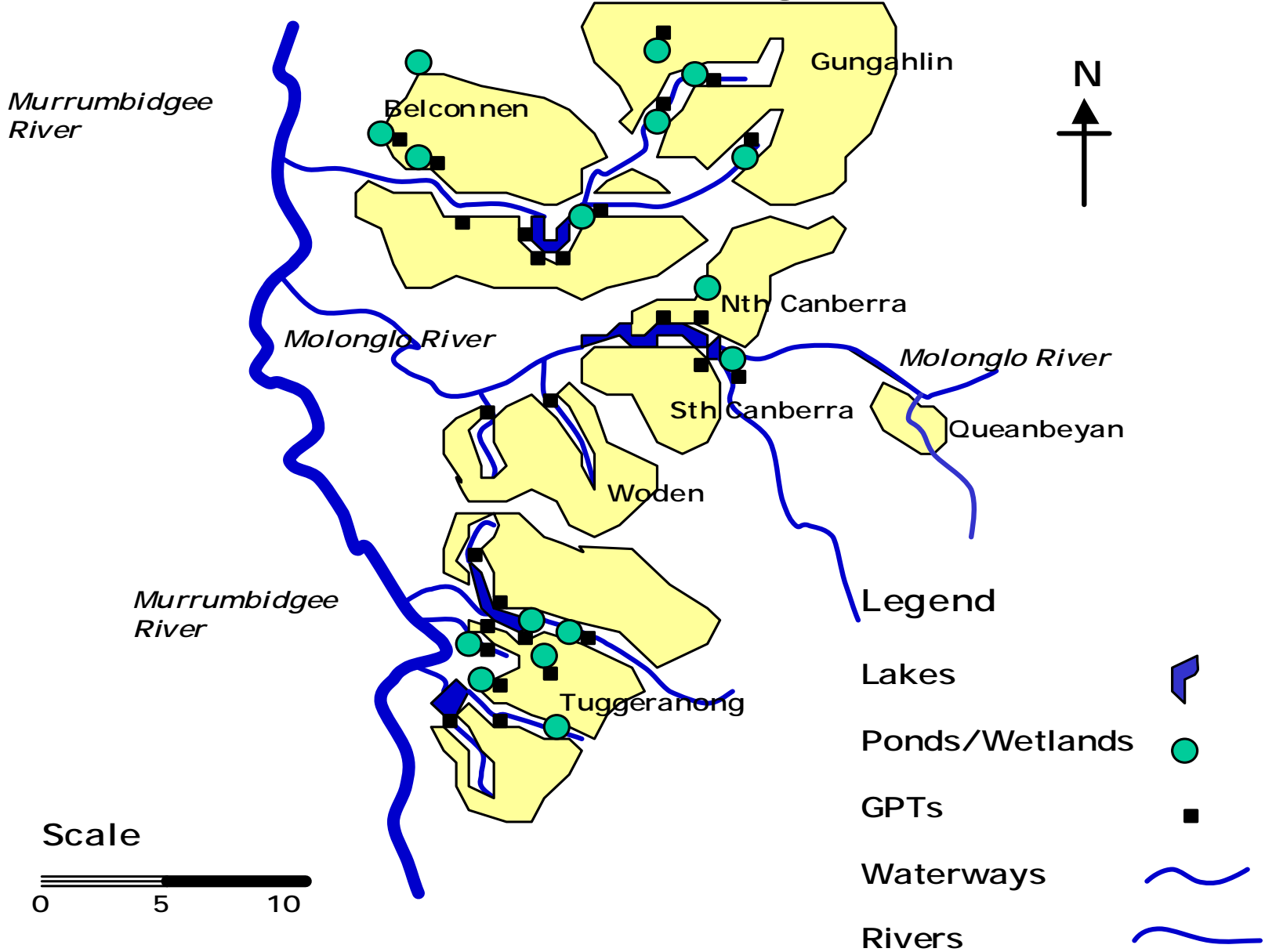




Sub-catchment integration – Homebush Bay saved \$650,000 pa.



# Plan of Canberra's Stormwater Management Measures



If we are smart,  
then water need not be  
an impediment to  
sustainable growth of  
the ACT Capital region

But, if we are dumb,  
development will put  
additional pressure on our  
drinking water supplies  
and on the health of  
our waterways



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