

Changed Canberra

In the “Changed Canberra” future, a number of external forces combine to significantly change and increase the characteristics of sewage production across the Capital region, whilst a changed policy and regulatory framework embodying higher collective environmental and social expectations from the community creates drivers for resource recovery and reuse.

The Capital region grows to greater than 1 million, through more infill development and densification relative to the base case.

The network has exceeded the limits of current treatment and sewer capacity in major catchments. There is a lack of available land to locate and access assets, pipes and localised treatment assets.

Pressures from population growth are compounded by climate change being worse than predicted, causing larger wet weather events and much drier conditions, resulting in more tree root intrusion and increased operation and maintenance (O&M) costs.

Canberra’s water security is significantly impacted by population growth, climate change, and changes in government policy (e.g. Murray Darling Basin Plan) leading to less water available for urban use. This leads to increased and earlier pressure for use of alternative water sources. Government policy enables consideration of all possible options (e.g. potable reuse and incineration are ‘on the table’).

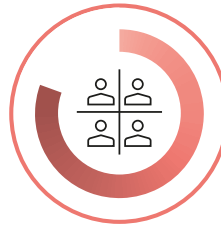
New industries come into the ACT, resulting in more variable sewage flow and load from industry and potentially shock-loads of chemicals that may damage treatment processes (e.g. killing off activated sludge). New and emerging contaminants are identified, but are effectively regulated. Higher load industries, such as waste to energy and manufacturing, presents opportunities for reuse of sewage treatment by-products, such as biosolids for waste-to-energy production.

Customers and third parties adopt decentralised treatment, reuse and recovery systems where it is cost competitive (e.g. where wastewater capacity constraints make local servicing less expensive for the customer). This will reduce to some extent the load and average flows entering the centralised system.

A changed regulatory framework is characterised by stricter regulation of discharge licence standards, overflow standards and odour/air pollution standards, and introduction of a stringent carbon reduction target. Under this scenario there are greater pressures for more advanced technology solutions and higher capital and operating costs.



Population
> 1 million



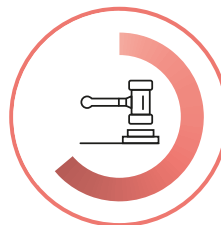
Population pattern
Infill/densification



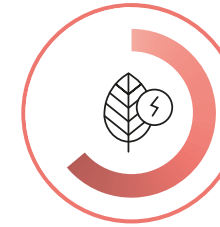
Industrial growth
New industries come into ACT



Climate change
Worse than predicted
resulting in larger wet
weather events and much
drier conditions



Regulation of discharges,
overflows, odour
Stricter regulation



Energy/carbon regulation
**Stringent carbon reduction
target**



Government policies
on future options
**Enables future potential
options (e.g. incineration
and potable reuse are on
the table)**



Canberra’s water security
**Significantly impacted by
changes in government policy
(federal, state or territory) in
combination with population
growth (and climate change).**
**Alternate sources of water
will become highly valuable.**



Emerging contaminants
Emerge and are regulated



Adoption of decentralised
systems by customers
(treatment, reuse, recovery)
**Where cost competitive
(e.g. infill)**