

Challenged Canberra

In the “Challenged Canberra” future, a number of external forces combine to significantly change and increase the characteristics of sewage production across the Capital region, whilst the policy and regulatory framework that embodies the collective environmental and social expectations of the community remains largely as it is today.

The Capital region grows to greater than 1 million, through more greenfield development relative to the base case. A more distributed network leads to higher operation & maintenance (O&M) costs, odour issues and customer issues. The limits of current treatment and sewer capacity in major catchments have been exceeded.

More people living downstream of the Lower Molonglo Water Quality Control Centre (LMWQCC) discharge point want a greater volume of high quality water in the river. More people living in water catchments leads to an increased risk of drinking water contamination from nearby sewers.

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

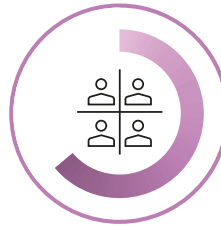
The Capital region’s water security is impacted by population growth and climate change, leading to increased pressure for use of alternative water sources. Government policy limits the availability of some future options such as potable reuse and incineration.

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 not regulated, placing greater pressure on treatment processes and achieving discharge compliance. Higher load industries such as waste to energy and manufacturing, present opportunities for reuse of sewage treatment by-products, such as biosolids for waste-to-energy production where cost competitive.

Customer or third party adoption of decentralised treatment, reuse, or recovery systems, where cost competitive, is low but significant (approximately 10% of new developments).



Population
> 1 million



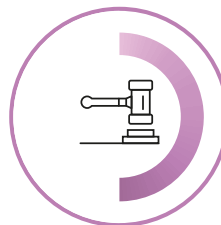
Population pattern
Greenfield



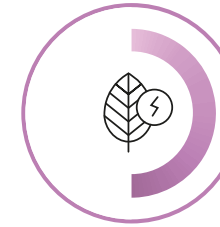
Industrial growth
New industries come into ACT



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



Regulation of discharges,
overflows, odour
Current settings



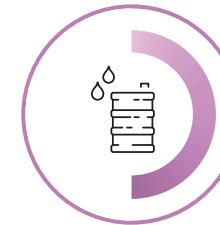
Energy/carbon regulation
Current settings



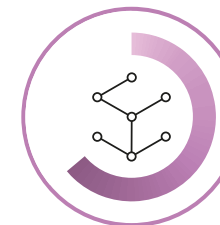
Government policies
on future options
**Limits future options (e.g.
no incineration, no potable
reuse)**



Canberra’s water security
**Impacted by population
growth (and climate change).
Alternate sources of water
will become highly valuable.**



Emerging contaminants
Emerge but are not regulated



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