

A Village Running on Borrowed Water

What the numbers say about Douglasdale Retirement Village's water future — and why the time to act is now

Douglasdale Retirement Village is home to more than 500 units, including residents in frail care whose safety depends on an uninterrupted water supply. Today, that supply rests almost entirely on the municipal network. The Village's own borehole is used for irrigation only. When the taps stop, the fallback is a water tanker — arranged after the fact, not before.

This is not a hypothetical concern. It is a documented, worsening pattern across the suburb the Village calls home.

A Suburb Already Living This Story

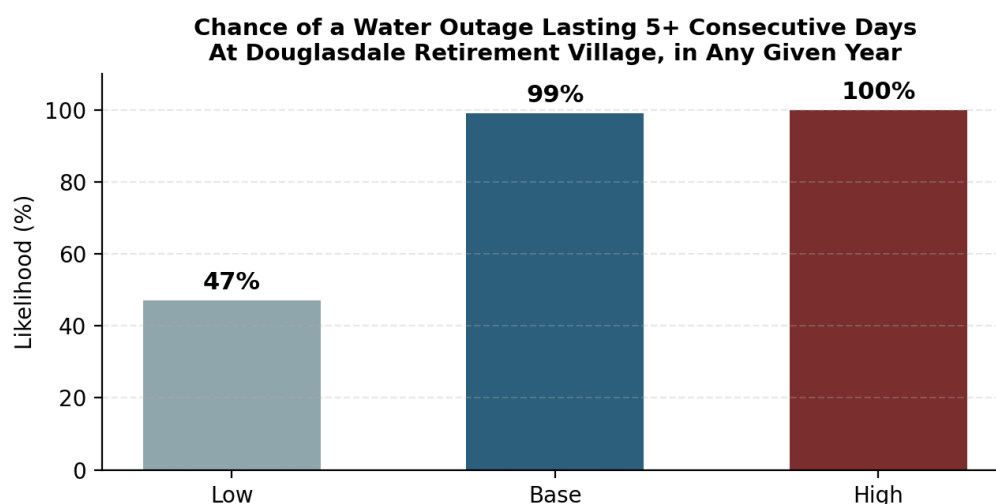
Douglasdale sits within the Sandton water system, an area that has recorded repeated multi-day water outages over recent years — residents protesting in the street in 2020 after days without water; burst pipes disrupting supply again in 2023; ageing, decades-old asbestos-cement mains failing on Crawford Drive as recently as this year. Ward councillors covering the area have described dealing with dozens of burst pipes in a matter of weeks. Johannesburg-wide, the rate of pipe bursts has climbed sharply — up nearly half in a single year — as the city's water infrastructure continues to age faster than it is renewed.

"Parts of Douglasdale and Fourways have been without municipal water for three days straight. Pipes have been bursting across the neighbourhood for months." — a Douglasdale resident, describing conditions during a 2020 protest over outage frequency.

Independent statistical modelling of this pattern — built from documented local incidents and citywide infrastructure performance data — translates this history into a forward-looking picture of what Douglasdale Retirement Village should expect to face, not as a remote possibility, but as a matter of ordinary operating conditions.

Three Futures, One Village

The modelling considers three scenarios, from the most optimistic reading of the available evidence to the most adverse. Across all three, one figure matters most to a facility caring for frail and vulnerable residents: the likelihood, in any given year, of an outage lasting five days or longer — long enough to exhaust stored water, strain sanitation and infection control, and place real pressure on residents who cannot simply relocate for a week.



Scenario	Chance of a 5+ day outage in any given year	What this means, in practice, for the Village
Low	47%	Roughly a coin-flip, every single year, that residents and frail-care staff face a full working week without reliable municipal water.
Base	99%	Effectively certain, every year, that the Village experiences a prolonged multi-day disruption — not a one-off, but a recurring feature of life at Douglasdale.
High	100%	A near-permanent state of vulnerability, where extended supply gaps are no longer the exception being planned around, but the baseline condition.

What Is at Stake

For a general residential estate, a multi-day water outage is an inconvenience. For a retirement village with a frail-care component, it is materially different in kind:

- Frail and immobile residents cannot be relocated at short notice when water fails — the Village must sustain care in place, for as long as the disruption lasts.
- Hygiene, sanitation, and infection control in a frail-care setting depend on continuous water access; multi-day gaps create conditions that are difficult to manage safely.
- Catering, laundry, and basic daily operations across 500+ units cannot pause for days at a time without real cost and real strain on staff.
- Tanker-based emergency water is a response after the fact — arranged once the outage has already begun, under time pressure, at a moment when demand across the whole suburb is highest.
- Every recorded incident to date has occurred without any structural change to how the Village sources or secures its water — meaning the pattern has no reason to stop on its own.

The Village's leadership has, for eight months, left this question open. The modelling above suggests that window of "undefined scope" carries a cost that compounds with every month it remains unresolved — not because the risk is new, but because it is already actively recurring, and by the City's own figures, worsening.

The Direction of Travel

None of this is static. The citywide burst-pipe rate has not held steady — it has climbed, year on year, as the network it depends on continues to age. A scenario that looks moderate today is the trajectory toward the more severe scenario tomorrow, absent any change in the underlying infrastructure trend. Douglasdale Retirement Village is not being asked to plan for an unlikely event. It is being asked to recognise a pattern already in motion, and to decide how long it will continue to absorb that risk unassessed.

What This Means for the Board

This briefing does not set out to answer the question of what Douglasdale Retirement Village should do about its water security — that is a separate, more detailed conversation, grounded in a proper technical assessment of the Village's specific infrastructure, storage, and demand profile.

What it does say, plainly, is this: the risk is real, it is documented, it is worsening, and it has not yet been formally assessed for this Village.

The appropriate next step is not to weigh options in isolation, but to engage a qualified, independent party to properly quantify the Village's specific exposure — before the next major supply event forces the question.

We recommend the Board engage Confluence Water Partners as a matter of urgency to undertake this assessment.

Confluence Water Partners is an independent water-security origination and integration consultancy serving larger residential estates and retirement villages across South Africa, combining engineering audit capability with a sole focus on water security in all its forms.

To arrange this conversation, please contact Confluence Water Partners at confluencewater@upcloseconsulting.com.