

TANK UPGRADE DECISION GUIDE

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Owner Reference Resource

Purpose

This resource is useful enough to help asset owners identify issues, keep useful records, and decide when to escalate – it is not a repair guide, design guide, or compliance certificate.

Owner guide for deciding when to monitor, repair, reline, refurbish or replace a water storage tank.

Important Scope Note

This guide is general information only. It does not replace a site-specific inspection, structural assessment, design review or commercial scope.

Use it to frame the decision. Do not use it to select repair methods, liner systems, coating systems, structural upgrades, tank type, or project budget.

What This Guide Helps You Do

- Identify the main decision paths for an ageing tank.
- Separate minor maintenance from major asset risk.
- Understand when replacement may be cleaner than repeated repairs.
- Prepare better information before requesting a site review.

What This Guide Does Not Cover

- Repair method selection.
- Structural calculations.
- Coating or liner specification.
- Cost estimating formulas.
- Construction sequencing.
- Certification or design advice.

The First Three Questions

Question	Why It Matters
Is the tank structurally serviceable?	Relining or repair is not sensible if the shell, roof or foundation is failing.
Is the defect localised or widespread?	Local defects may be repairable; widespread deterioration usually needs a broader asset decision.
Is the remaining asset life worth protecting?	Spending money on an asset near end of life can create repeat outages and poor value.

If any answer is unclear, the next step should be inspection, not guessing.

Option 1 - Keep And Monitor

This may be suitable when:

- Defects are cosmetic or isolated.
- There is no active leak.
- Access is safe.
- Coating wear is minor and stable.
- The tank is not moving, deforming or settling.

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Owner action: record the condition, keep photos, and schedule the next review.

Option 2 - Targeted Repair

This may be suitable when:

- Damage is localised.
- The shell and foundation appear otherwise serviceable.
- The issue is limited to fittings, access items or a discrete defect.
- The defect cause is understood.

Owner action: request a specialist review before defining the repair.

Option 3 - Reline Or Refurbish

This may be suitable when:

- The structure remains serviceable.
- Internal deterioration or liner failure is the main issue.
- The tank has enough remaining life to justify life-extension work.
- A planned outage is possible.

Owner action: confirm tank condition and outage constraints before deciding scope.

Option 4 - Replace

Replacement should be considered when:

- Corrosion or deterioration is widespread.
- Leaks are recurring.
- The tank is distorted, settled or structurally compromised.
- Access and safety items need major work.
- Repeat interventions are becoming normal.
- The tank no longer suits the site duty or compliance expectation.

Owner action: compare whole-of-life value, not only the cheapest immediate fix.

Decision Matrix

Asset Factor	Monitor	Repair	Reline / Refurbish	Replace
Isolated minor defect	Likely	Possible	Unlikely	Unlikely
Localised known defect	Possible	Likely	Possible	Unlikely
Widespread coating or liner failure	Unlikely	Unlikely	Possible	Possible
Structural movement or distortion	No	No	No	Likely
High criticality asset	Only if stable	Possible with review	Possible with review	Possible
Repeated outages	No	Unlikely	Possible	Likely

This matrix is a prompt for discussion. It is not a specification.

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Warning Signs That Need Review

- Structural distortion.
- Foundation movement.
- Multiple leak points.
- Repeated liner or coating failure.
- Severe corrosion across a large area.
- Unsafe roof, ladder, platform or hatch condition.
- Unclear service history.

What To Prepare Before Calling

- Tank location and approximate capacity.
- Tank type if known.
- Age or installation year if known.
- Recent photos.
- Leak history.
- Previous inspection or repair records.
- Site access constraints.
- Required outage window.

Next Step

The right answer is rarely "repair or replace" in isolation. It is the option that gives the lowest operational risk for the remaining asset life – and that judgement needs evidence, not guesswork.

PC Tanks inspects the tank, builds the evidence base, and helps you decide between maintenance, relining, refurbishment and replacement. We deliver this as a single decision-ready report, not a sales quote.

Request an upgrade decision review – call 1300 029 804, email info@pcwater.com.au, or visit pcwater.com.au.