Strategy to Reality: One Year Improving Maintenance Delivery

Liam Kelly, *Lead Maintenance Improvement,* Seqwater
Dion Molloy, *Lead Strategic Maintenance Improvement,* Seqwater

ABSTRACT

In 2025, Seqwater presented at WIOA on a strategic shift in its maintenance delivery model through the introduction of a collaborative contract arrangement. That presentation focused on why change was required, the drivers for change, the chosen delivery model, and the foundations needed to move away from traditional outsourced maintenance towards a more mature, accountable, and data-led approach. Twelve months on, this follow-up presentation reflects on how that strategy has played out in practice and what has actually changed on the ground. From the perspectives of Maintenance Improvement and Reliability, this paper provides a practitioner's view of the first year operating under the new maintenance contract. It focuses on the practical improvements that have been implemented and how these changes have impacted day-to-day operations. The presentation explores how early concepts translated into operational reality on site, including what worked well, what required recalibration, and where initial assumptions were challenged. Designed for operators, supervisors, planners, and reliability practitioners, this presentation shares honest lessons from the first year of implementation. It highlights that real and sustainable change is achieved not through contract structures alone, but through disciplined execution, clear roles, consistent standards, and learning from what actually happens in the field.

1.0 INTRODUCTION

In 2025, Seqwater presented at WIOA on its Asset Services 2025 Strategy, a transformative approach to maintenance delivery for South East Queensland's bulk water assets. That paper introduced the Seqwater Collaborative Asset Services (SCAS) model, established in partnership with Ventia Utilities, and focused on why a strategic change was required, the delivery model options assessed, the chosen functional hybrid approach, and the four-year vision to shift from a predominantly time-based preventative maintenance model to a condition-based, predictive, and data-driven approach.

While the 2025 presentation focused on strategy, many of the challenges experienced over the past 12 months were encountered in day-to-day operations, from raising work requests, planning jobs, and completing work in the field. This follow-up paper focuses on what happened next, from the perspective of the people responsible for turning that strategy into operational reality.

As part of the new delivery model, Seqwater established a dedicated Maintenance Improvement and Reliability function to drive improvements in maintenance processes, system configuration, data quality, reliability engineering, and the governance frameworks that connect them. This team operates at the intersection of strategy and field execution, translating maturity goals into trackable, deliverable improvements that benefit the people doing the work on the ground.

This paper provides a practitioner's account of Year One. It is not a strategic overview, it is an honest reflection on what worked, what required adjustment, and what we learned about delivering change in a complex operational environment. It is written for the people who do the work: operators raising work requests, planners building schedules, supervisors reviewing completions, and reliability practitioners looking for better data. Many of the improvements described in this paper were not driven by strategy alone, but by recurring frustrations raised by operators, supervisors, and planners working within the system every day.

2.0 DISCUSSION

The transition from strategy to delivery in Year One did not occur through a single initiative, but through a series of interconnected improvements across systems, processes, and behaviours. These improvements collectively focused on strengthening work management practices, improving data capture, and introducing early predictive maintenance capability.

2.1 From Strategy To Delivery

A key early realisation was that the scale of improvement activity required structured governance. Over 60 improvement initiatives were identified across maintenance delivery, leading to the establishment of a centralised improvement register to manage prioritisation, ownership, and progress. This provided a consistent framework to move improvement from discussion to delivery.

Each item is mapped to Seqwater's Asset Maintenance Maturity Plan, cross-referenced against independent external audit recommendations, and tracked through a defined lifecycle from identification through to closure. The register categorises items by type, status, responsible party, and strategic alignment.

The register is not just a tracking tool, it became the governance backbone for improvement delivery. Monthly meetings with the service provider and fortnightly internal sessions are structured around it, ensuring every initiative has clear ownership, milestones, and escalation pathways.

Alongside this, a series of targeted “quick wins” were implemented to address day-to-day system and process inefficiencies. These included tightening scheduling controls, removing redundant system data, updating field guidance, and deliberately deciding where existing processes should remain unchanged. While individually small, these changes improved system usability and established early credibility in the improvement process.

A major focus area is improving how data is captured in the field. One of the key initiatives Seqwater is working towards is the replacement of document-based task instructions with structured digital checklists embedded directly within work orders. This is intended to enable inspection data, condition observations, and compliance records to be captured in a more consistent, usable format, supporting both operational execution and future analysis.

Improvements are also being progressed across the broader work management lifecycle. These include pre-screening work requests, improving request quality at the source through targeted engagement and coaching, making key planning fields mandatory, and developing structured processes to capture additional work identified during execution. Together, these initiatives are intended to improve the quality and completeness of information entering the planning process.

In parallel, early steps were taken to deliver on the strategic shift to predictive maintenance. A pilot program instrumented approximately 30 high-criticality rotating assets with vibration and temperature sensors, enabling continuous condition monitoring and early fault detection. While implementation challenges were encountered, this marked a tangible move from concept to operational capability.

Preventive maintenance optimisation was also progressed through a targeted pilot program at one site. This program focused on reviewing and refining maintenance tasks based on asset criticality and condition, with the intention of validating an approach that could be scaled across the network.

Collectively, these initiatives represent the practical reality of implementing a maintenance strategy, iterative, interconnected, and shaped by both technical constraints and operational experience.

2.2 Why This Matters Operationally

The improvements implemented in Year One delivered practical benefits across field execution, planning, and reliability functions.

For operators and technicians, the shift towards digital checklists and improved work management processes will reduced paperwork, minimised duplication of effort, and enabled information to be captured once, at the point of execution. This will improve efficiency and reduced the need to revisit or reprocess completed work.

For planners and supervisors, improvements to work request quality, scheduling discipline, and time recording provided more reliable information to support decision-making. Better data quality reduced rework, improved planning accuracy, and clarified accountability between planning and delivery teams.

For the broader organisation, structured data capture and improved traceability of work created a stronger foundation for reliability analysis and continuous improvement. Initiatives such as predictive monitoring and preventive maintenance optimisation began to demonstrate how operational data can be used to move from reactive to proactive maintenance practices.

Importantly, the establishment of a structured improvement register ensured that issues raised by field teams were visible, tracked, and progressed. This built confidence that the improvement process was delivering tangible outcomes, not just discussion.
Overall, these changes demonstrate that effective maintenance improvement is not driven solely by strategy or systems, but by improving how work is planned, executed, recorded, and learned

from in day-to-day operations.

2.3 What Worked Well

- **A centralised improvement register as a governance backbone**
  - Providing structure, traceability, and accountability across 60 initiatives, and giving field teams confidence that their feedback is being tracked and acted on.
- **Quick wins that built credibility**
  - Completing practical, visible improvements early demonstrated that the improvement process delivers results, not just meetings.
- **Digital checklists replacing paper**
  - A practical, field-friendly change that directly reduces paperwork and improves data quality for everyone downstream.
- **Predictive maintenance pilots**
  - Moving from concept slides to physical sensors on assets within Year One, demonstrating that the strategic vision is translating into operational capability.
- **Collaborative engagement**
  - Regular, structured meetings with the service provider created a rhythm for tracking and progressing improvements. Neither party could hide from the register.
- **Maturity framework alignment**
  - Mapping every field-level improvement to strategic objectives ensured that individual actions connected to the bigger picture and could be reported meaningfully to leadership.

2.4 What Needed Recalibration

- **Enterprise system integration was deferred.** We assumed integration between the CMMS and financial systems would progress in Year One. In reality, enterprise IT priorities, payroll, procurement, took precedence, and the integration project was formally paused. The lesson: maintenance improvement competes for the same corporate resources as every other function, and you don't always win.
- **System version constraints.** Multiple initiatives were stalled because features confirmed as available by the software vendor were not available in our specific version or configuration. "The system can do it" does not always mean "our system can do it right now."
- **Access controls are blunt instruments.** We assumed we could grant the service provider selective access to specific fields in the CMMS. The system grants full access or none at the profile level, no middle ground. This required process-based workarounds rather than system-based controls.
- **Governance through reporting, not system locks.** An initial approach to prevent incorrect work orders being raised against parent assets via system controls was assessed but deemed unlikely to be approved due to resource constraints. The approach shifted to using reports to monitor and correct behaviours, pragmatic, if less elegant.
- **Technical readiness outpaced organisational readiness.** Several improvements that were technically ready required additional time for communication, training, and stakeholder alignment before deployment. Building the thing is often faster than getting people comfortable using it.

2.5 Honest Lessons For Practitioners

1. **Contract structures don't deliver change, disciplined execution does.** The new contract created the conditions for improvement, but every individual change required its own effort, governance, and follow-through. There is no shortcut.
2. **Track everything.** Without a register, improvement work becomes invisible. Tracking made it possible to report progress, escalate blockers, and demonstrate value to leadership. If it's not tracked, it doesn't exist.
3. **Quick wins matter.** Completing eight initiatives in Year One, even small ones, built momentum and credibility. People believe in a process that produces results they can see and feel on site.
4. **System limitations are not failures, they're design inputs.** Every constraint discovered in Year One informed a better approach for Year Two. Plan B is not a sign of poor planning; it's a sign of mature delivery.
5. **Change management is the hardest part.** The technical work is often straightforward. Getting people to adopt, understand, and sustain the change is where the real effort lies. You can configure a system in a day. Changing behaviour takes months.
6. **Be honest about what you don't know.** Presenting progress honestly, including delays, blockers, and things that didn't work, builds more trust than presenting a polished version of reality. Our industry benefits from practitioners sharing what actually happens, not just what was planned.

3.0 CONCLUSION

Twelve months after presenting the strategic case for change at WIOA, the picture on the ground is one of genuine, measurable progress, tempered by the reality that operational improvement in a complex environment is hard, iterative, and rarely linear.

The key message for practitioners is this: real change is not delivered by a contract, a strategy document, or a maturity framework. It is delivered by the people who show up every day, raise work requests properly, enter time accurately, test system changes, and follow through on actions from meeting to meeting. The contract created the structure. The people delivered the outcomes.

Year Two will build on these foundations, completing asset data improvement programs, deploying structured fault and cause coding for reliability analysis, rolling out PM optimisation beyond the pilot site, embedding the triage pre-screening process into business-as-usual, and evaluating whether to scale predictive monitoring across the network. The register will continue to grow, and the lessons from Year One will inform how we approach every new initiative.

4.0 ACKNOWLEDGEMENTS

The authors wish to thank Matthew McNamara (Improvements & Reliability Manager, Seqwater) for his leadership and sponsorship throughout Year One. We acknowledge the contributions of the Asset Information, Strategic Maintenance Planning, and broader Improvement and Reliability teams within Seqwater. We also recognise the collaborative engagement of our Ventia partners, whose willingness to work through challenges constructively has been essential to progress. Finally, we thank WIOA for the opportunity to share these lessons with the broader water industry.

5.0 REFERENCES

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