Coliban WATER

Insourcing of Wastewater Operations to Strengthen Operational Capability and Control at Coliban Water

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1 Abstract

This paper examines the strategic transition undertaken by Coliban Water to shift a portion of its Wastewater Treatment Operations and Maintenance (O&M) functions from an externally sourced service model to a fully insourced organisational capability. The transition was driven by a need for greater operational control, improved asset knowledge, enhanced workforce capability, and the rebuilding of internal operational expertise. Through a structured transformation program, the organisation successfully established a new team with the appropriate capabilities, capacity, tools, and equipment to undertake O&M of insourced sites. This paper outlines the rationale for the change, the methodologies applied to ensure a seamless transfer of people, systems, and operational knowledge, and the governance mechanisms implemented. Early outcomes demonstrate improved operational responsiveness, increased transparency of performance, and clearer accountability for regulatory compliance. The insights presented provide a practical framework for organisations considering similar transitions from outsourced service delivery to internal operating models.

2 Introduction

Coliban Water, a regional water corporation responsible for providing water and wastewater services across central and northern Victoria, identified an opportunity to reform its operating model by insourcing key aspects of wastewater treatment O&M. This transition sought to address limitations inherent in the outsourced model and to strengthen long-term organisational capability.

With the sunsetting of a number of key operational contracts in the coming five years, a detailed review of our operating model was undertaken to ensure we are effectively positioned to deliver our Strategy – dhelk gatjin dehlk balak (Healthy Water, Healthy People) – and drive exceptional value for our customers.

This paper outlines the approach used to complete a pilot of the insourcing process, identifies the drivers behind the strategic shift, and shares insights that may support other organisations undertaking similar transformations.

3 Discussion

Coliban Water currently outsources the majority of our operations and maintenance services to various strategic partners. In preparation for an operating model review that was being undertaken, Coliban Water identified an opportunity to undertake a pilot to insource a segment of our asset base. Subsequently the Operating Model Review report was endorsed by the board which outlined that; based on the strategic objectives of the organisation, that Coliban Water would perform operations and maintenance of wastewater treatment sites and customer connection assets at the conclusion of the existing outsource contract and that water treatment and water and sewer networks would continue to be outsourced.

3.1 The Problem

Coliban Water's business knowledge in relation to performing the operations and maintenance of our current outsourced operations is limited, which poses a risk to achieving the best value outcomes needed when assessing the preferred options for sunsetting contracts.

To address the risk of the transition of responsibilities of the various treatment sites, Coliban Water in conjunction with our strategic partner, Service Stream, identified an opportunity to perform a phased transition of nine lagoon water reclamation plants (LWRPs) and the Bendigo recycled water factory (BRFW) prior to the end date of the contract.

The opportunity to transition operations of lagoon-based WRPs considered a number of factors:

- Operations of the lagoon sites is relatively straightforward, and Coliban Water's Wastewater Services team currently provide a high level of oversight and direction.
- These sites would provide a low-risk environment for Coliban Water to test our current systems and processes in a wastewater operational space.
- The skills, process and systems developed through this transition would be transferable to the other wastewater treatment sites that would be insourced at the conclusion of the contract along with other operational areas within Coliban Water (Headworks/Rural).

Stepping into this space early was intended to provide Coliban Water a better understanding of these assets and the requirements to undertake the operations so we can be a more intelligent client into the future.

The transition was limited to the treatment sites of Boort, Bridgewater, Cohuna, Dunolly, Elmore, Gunbower, Heathcote, Lockington and Pyramid Hill Water Reclamation Plants and Bendigo Recycled Water Factory.

3.2 Objectives

The primary objective of the project was to successfully transition the entire responsibility for operations and maintenance of nine lagoon-based water reclamation plants and the Bendigo recycled water factory to Coliban Water without impacting our levels of service or regulatory compliance requirements.

To facilitate a smooth transition it required business, systems, processes, financial and people resources and operational capability to be implemented to support the on-going O&M activity associated with the Sites.

Operations of these sites involves the lagoon treatment of sewage and treatment of reclaimed water in accordance with our EPA Licence requirements. Treated water from these sites is used to provide beneficial reuse for our customers.

The following Key Objectives were determined for the project:

- Understand the business requirements to operate and maintain a LWRP and a RWF.
- Understand the gap between current and future state.
- Understand the various stakeholders and address their needs.
- Achieve a successful handover with the existing partner, interfacing asset owners to Coliban Water managed sites
- Actions required for Coliban to begin operating and maintaining the LWRP and the RWF are understood, agreed and delivered.
- Achieve independent management of operations and maintenance of the LWRP and the RWF.

A key outcome was to capture lessons learnt and business transition issues associated with this project to inform future operating model assessments and transition activities.

3.3 Transition Approach

Coliban Water adopted a structured approach to define the project requirements and deliver a smooth transition to insource the operations and maintenance responsibility for the LWRP and BWRF. Utilising a hybrid-agile delivery method supported both flexibility and rigour, ensuring that key milestones were met while enabling iterative refinement as insights emerged.

A core focus of the transition approach included:

- **Defining transition requirements:** Establishing the full scope of what was needed for a safe, compliant, and effective operational handover.
- **Identifying required roles and competencies:** Mapping the organisational structure, technical capability needs, and leadership requirements for the new operating environment.
- **Targeted recruitment strategies:** Filling capability gaps through a mix of external recruitment and, where appropriate, recruiting experienced operators from the current contractor to preserve continuity.
- **Capability uplift and training:** Designing a structured training program covering operational processes, technology skill uplift, safety systems, asset-specific knowledge, and site-based practices.
- **Induction and onboarding:** Introducing new personnel to Coliban Water's culture, values, governance processes, and performance expectations.

This structured approach ensured that the new operating team was fully prepared, competent, and operationally ready 3 months prior to the formal handover date.

3.3.1 Transfer of Assets, Tools, and Equipment

Operational readiness depended on the effective transfer of all physical and digital assets required to run the assets. Key items transferred included:

- Maintenance and operational data logs, and historical work order records

- Safety documentation, permits, and operational procedures
- Site-specific O&M manuals, historical performance data, and compliance artefacts

A structured asset verification and condition assessment process was undertaken to confirm asset data accuracy. This mitigated the risk of missing or outdated asset information and ensured that the new team could immediately operate with confidence.

3.3.2 Knowledge Transfer and Systems Integration

To minimise the risk of operational disruption, Coliban Water in coordination with Service Stream, developed a knowledge transfer program designed to preserve critical operational knowledge. This program incorporated:

- **Shadowing and joint operations:** New operators worked alongside incumbent contractor staff to capture day-to-day operational practices and understand environmental, safety, and process nuances.
- **System integration and data migration:** Transferring operational, safety, and asset data into Coliban Water's internal systems to establish a single source of truth.
- **Procedure and SOP development:** Updating and standardising operating procedures to reflect the new operating model and Coliban Water requirements.

Together, these activities ensured operational continuity, reduced transfer risk, and established clear accountabilities for ongoing service delivery.

3.3.3 Key Transition Artefacts

The transition phase is supported by the development of a set of key artefacts that document the project design, processes and support model. The artefacts listed below outline the structure utilised to capture information and ensure that the objectives of the project could be delivered.

Artefact	Purpose
Project Management Plan	Articulates the project scope, goals, objectives and high-level evaluation criteria to ensure all stakeholders are clear on what the targets are.
Business Plan	To articulate the elements required to operate and maintain a modern and efficient LWRP and BWRF
Gap Analysis	To understand current and future state using MoSCoW prioritisation to assist in determining what will be delivered as part of the minimum viable product and what workarounds will need to be developed.
Action Plan	List of all the actions that SMEs and their teams will undertake to ensure all the must have actions are completed by the handover date.
Description of the Minimum Viable Product	Documented description of the Minimum Viable Product that will be delivered at the point of transition, that includes specific deliverables and Key Performance Indicators.
Change Management Plan	Identification and assessment of the impacts of change on stakeholders
Lessons Learnt Register	Captures desired activities, failed activities and opportunities for improvement throughout the project lifecycle captured from the gap analysis workshops and retrospectives.
Handover Plan & RACI Matrix	Transition of operational responsibility from project delivery to BaU functions.
Evaluation Plan	Measurement of the project's success factors to ensure objectives were met and the project can be closed

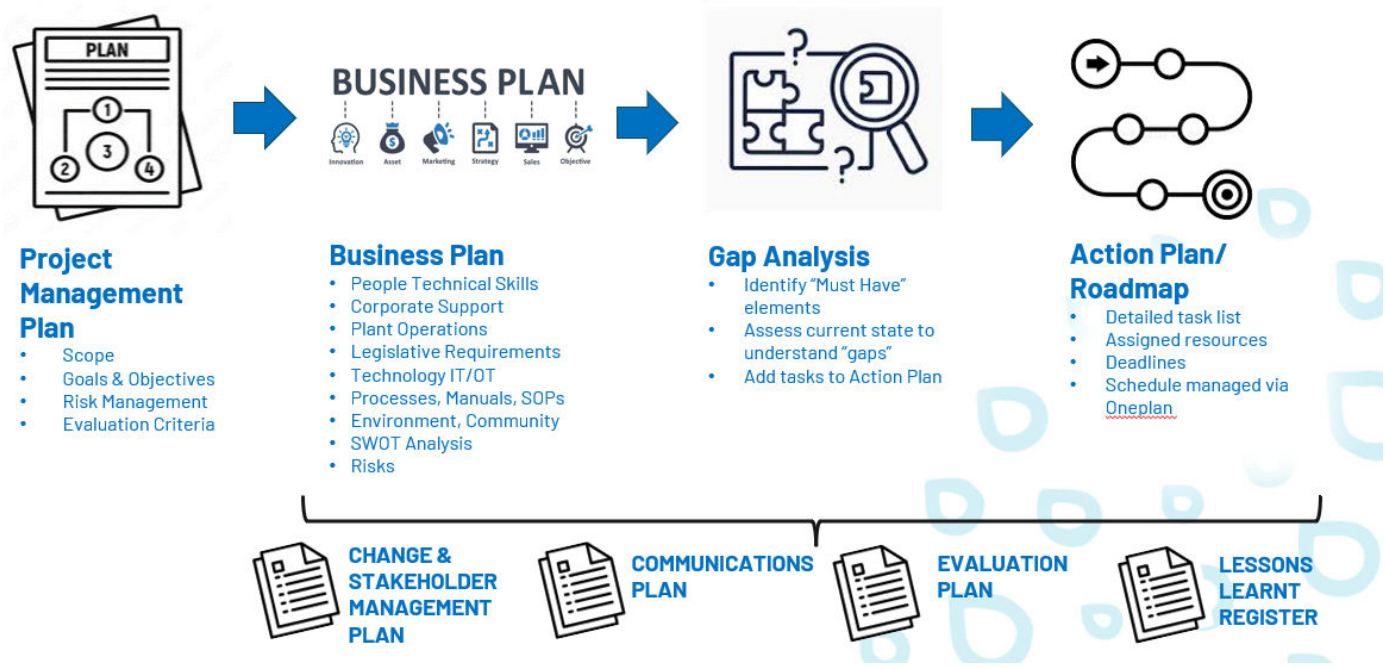

Figure 1. Transition approach and artefacts

3.4 Outcomes and Benefits

Coliban Water's minimum viable product was defined in the following descriptions relating to the requirements and objectives of the project:

- **Staffing:** Coliban Water has an increased staff coverage across these Lagoon based WRP's, with an increased competency (operate / maintain model and manage land capabilities) to manage the risks.
- **Safety:** This team is safety trained, focused and knowledgeable of the risk's and implements a proactive risk management approach to support delivering 100% reliable service 24/7.
- **Operational Knowledge**: The team has developed a greater operational knowledge of these sites and embedded an increased level of operational activity into our processes to manage our risks and improve our performance, striving for operational excellence.
- **Regulatory Compliance**: Have the systems and processes in place to be able to deliver and demonstrate operational compliance for all conditions for all site operating licences.
- **Suppliers:** The contractors and suppliers required to support the operations and maintenance activities are assessed as competent and engaged directly with Coliban Water to support our activities.
- **Intelligence:** Improved processes and data reporting that is directly aligned to risk management and informs in near-real time against our licence obligations.
- **Finance:** an operational budget is established and forecasts are based on established practices and data collection during the shadowing phase of the project.
- **Handover:** A successful handover from Service Stream has occurred and lessons learnt captured along the way to improve any future handover activities.

With the delivery of the MVP, Coliban Water's transition to direct operations delivers a more agile, resilient, and insight-driven service model. By being in control of day-to-day operations, operational staff can make informed decisions and adapt quickly to changing conditions. Improved visibility of asset condition and performance supports more informed

maintenance planning, with the goal to ultimately extend asset life and reducing lifecycle costs. At the same time, building in-house operational capability ensures long-term workforce resilience, reduces reliance on external providers, and allows for operators to strive for operational excellence. Enhanced transparency of operational data and performance metrics further enables proactive risk management, stronger compliance reporting, and improved accountability to regulators and the community.

Collectively, these outcomes reduce organisational risk and position Coliban Water operational staff to take pride in the assets and explore continual improvement opportunities while we continue to provide reliable services to our communities.

3.5 Lessons Learnt

A register was utilised by the project team to capture lessons learned for the duration of the project. Some key lessons identified during the project include:

- Early and sustained engagement with stakeholders is critical, including with our strategic partner and engaging their employees directly.
- A phased and structured approach to knowledge transfer ensures operational continuity and reduces risk for ongoing operations.
- Clear governance structures and utilising the hybrid agile project delivery methodology enabled disciplined execution and assisted in understanding resource effort requirements to prevent delays.
- A focus on culture and capability of the new team is as important as technical readiness.

The transition provided several insights valuable to Coliban Water as we embark on additional transition activities while also being applicable to other water industry organisations considering undertaking similar activities.

4 Conclusions

The insourcing of wastewater treatment operations and maintenance at Coliban Water represents a significant strategic transformation aimed at improving operational control, strengthening asset knowledge, and building internal capability. The success of the transition demonstrates that with structured planning, clear governance, and a focus on people and knowledge transfer, insourcing can deliver meaningful improvements in organisational performance.

The practical insights outlined in this paper provide a framework for water corporations and other organisations considering a shift from outsourced to internal operating models.

5 Acknowledgements

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6 Definitions

LWRP – Lagoon Water Reclamation Plant

RACI – Responsibility, Accountability, Consulted, Informed (responsibility assignment tool)

MoSCoW –Project management prioritisation framework utilising Must, Should, Could and Won't haves

BRWF – Bendigo Recycled Water Factory

MVP – Minimum Viable Product, the output of the project which delivers core functionality for the service

SOP – Standard Operating Procedure