Murrumbidgee Irrigation

Insights Brief

2026 Strategy Refresh and Corporate Plan Project

March 2026

Lecroma Shaping a resilient future

VUCA Trusted Advisors

Contents

1. Executive Summary

Murrumbidgee Irrigation (MI) is at a point of inflection. The core message of this brief is that the question is no longer whether change is coming, but whether MI can adapt to a more volatile, uncertain and contested environment without losing operational discipline and customer trust. MI remains, first and foremost, a water delivery business. But it is also infrastructure and logistics enterprise that underpins one of Australia's most productive irrigated regions, with consequences for agriculture, manufacturing, local employment, town water and environmental water delivery.

What is changing is clearer. Climate variability is now being experienced as "feast and famine with water", bringing higher peak demand in heat, more pressure on infrastructure, and more complex flood and drought management. MI customers are also experiencing increasing supply chain sustainability expectations. Regulation is also tightening, with stronger compliance expectations, more formal dispute pathways and higher demands for transparency and accountability. At the same time, the regional economy is diversifying, environmental water has become a significant user, and customers expect greater responsiveness and digital access. What remains uncertain is the pace and combined effect of these shifts, especially on future water availability, customer mix and MI's operating model.

The people affected are not limited to irrigators. MI's performance now matters to larger farm enterprises, smaller landholders, processors, towns, environmental water users, local communities and government. The customer base is also changing. The report points to fewer, larger and more commercially sophisticated farm businesses over time, alongside a long tail of smaller irrigators who still require high-touch support. That creates a practical challenge for MI: the service model that worked for a more uniform customer base will not be sufficient for a more segmented one.

Technology is part of this shift. Water is becoming a data-rich commodity, and larger enterprises increasingly expect accurate, timely and traceable information, plus better integration between MI systems and on-farm technology. AI has been raised as an emerging priority, yet the immediate issue is whether MI's own systems can talk to each other, whether data is governed properly, and whether customers trust how information will be used. This brief argues for sequencing: strengthen internal data foundations first, then expand interoperability and automation in a controlled way.

A central tension sits underneath the whole report: MI's purpose. This brief makes the point that this is not a philosophical debate. A narrow purpose keeps MI focused on what it directly controls: reliable, efficient and reasonably priced water delivery. A broader purpose recognises that MI already influences regional productivity, community confidence and the long-term viability of the irrigation system. The real issue is not choosing one extreme or the other. It is defining a purpose that protects operational focus while recognising the wider system in which MI operates.

This matters because the financial and delivery pressures are interconnected. MI's asset base is extensive, ageing and harder to sustain under the current revenue model. Customers are not arguing for inaction, but they are sceptical of higher costs without clearer evidence of efficiency, better investment logic and stronger communication. Business as usual may be tolerable in the short term, but the report is blunt that it is likely to produce "massive hurt" over the next ten to twenty years if capital planning, efficiency and revenue diversification are not treated as one strategic problem.

The other major constraint is trust. Customer service in this brief is presented as a social licence issue. The report describes a persistent trust deficit shaped by legacy grievances, MI's monopoly position, weak follow-through on maintenance and complaints, and poor visibility once issues are lodged. It also notes a marked internal-external perception gap: customers placed materially more emphasis on governance, trust and transparency than staff, by 23.4 percentage points. In a tighter water environment, service failures are not experienced as isolated operational problems, but signals about fairness, competence and intent.

Taken together, this brief points to a more complex but still practical conclusion. MI does not need to be all things to all people. But nor can it behave as though water delivery exists in isolation from climate volatility, customer consolidation, digital expectations, asset renewal and public scrutiny. These factors are interconnected, and the ambiguity sits in the boundaries: how far MI's role should extend, how benefits from efficiency should be used, and how change is explained so that customers can see the logic rather than just the cost.

Increasing water scarcity, price volatility and supply chain sustainability expectations are leading to more pressure to increase water sustainability and MI efficiency. To respond MI needs to build social license undergo further rounds of automation, technology investment and capex to reduce water conveyance losses, increase efficiency, lower costs and increase data analytics.

Summary of recommendations

The consultation suggests MI is moving into a more complex operating environment. Climate volatility is increasing pressure on the irrigation network. Farm consolidation is reshaping the structure of irrigated agriculture. Digital systems are becoming central to how irrigation infrastructure is managed. At the same time, the scale of future asset renewal is growing and expectations around reliability, transparency and service are rising. These shifts are interconnected.

The central question for MI is therefore not how to respond to any single issue, but how to strengthen the foundations of the operating model so the network remains reliable, financially sustainable and trusted by customers under more demanding conditions.

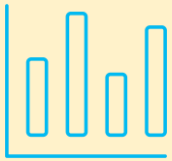
This brief identifies and recommends six strategic priorities that together form a practical agenda for doing this.

Plan and operate the irrigation system for a hotter and more volatile climate, ensuring infrastructure investment and asset renewal are designed for more extreme operating conditions

Adapt MI's operating model to a changing structure of irrigated agriculture, recognising that the customer base is likely to become smaller in number but larger and more technologically sophisticated

Strengthen MI's digital, data and automation foundations, so the organisation can operate a more integrated, data-driven irrigation system and support increasingly automated farm operations

Clarify MI's purpose and strategic role, maintaining a clear focus on reliable water delivery while recognising MI's role in sustaining the irrigation system and regional economy



Strengthen the long-term funding and investment framework, linking asset renewal, efficiency and commercial opportunities so the network can be sustained over the long term

Strengthen customer trust through clearer service systems and engagement, improving transparency, responsiveness and accountability in the way MI works with customers

These priorities focus on strengthening the infrastructure, organisational capability and relationships that underpin the irrigation network. Addressing them should position MI to manage growing climate pressure, structural change in agriculture and rising expectations from customers while maintaining the long-term viability of the system.

The Pace of Change

Case study: wine industry disruption (2020-2026)
"Ok to broke in six years"

The wine industry case study, 'Ok to broke in six years' highlights that a 'steady as you go' business as usual strategy is not feasible in a volatile, uncertain, complex and ambiguous (VUCA) environment. Survey respondents are clear that MI needs to change to remain effective.

Between 2020 and 2026, a series of pressures converged. China's tariffs removed a major export market, global wine consumption declined, and the bulk wine market weakened. At the same time, storage levels increased sharply, signalling structural oversupply across the industry.

For irrigated grape growers in the Riverina, the economics deteriorated quickly. Prices fell below the cost of production across multiple vintages. Many vineyards became unviable to operate. The response across the region has included growers retiring on farm, land aggregation into larger enterprises, and transitions into alternative crops where possible. The disruption has also had social consequences. Industry groups have responded with support initiatives, including mental health first aid programs for growers facing financial stress.

To respond to changing market expectations, grape growers have taken up various sustainability initiatives, including the Sustainable Wine Australia certification.

Image source: https://griffithtours.com.au/griffith-food-and-wine-tours/

Why this matters for MI

The wine industry's experience demonstrates how quickly market conditions can change in irrigated agriculture.

Industries that appear stable can shift within a single investment cycle. External shocks, changing consumer expectations, and global market dynamics can rapidly alter crop viability.

For MI, the implication is clear: planning cannot assume stability in the regional production base. Strategy needs to account for structural change in industries, crops and customer viability over relatively short timeframes.

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2. Methodology

This insights brief was developed through a structured process led by Lecroma and VUCA in partnership with Murrumbidgee Irrigation (MI). The approach combined document review, stakeholder consultation, survey analysis and internal workshops to build a clear picture of MI's operating environment and the pressures shaping its future.

The purpose was to test how MI's role, risks and opportunities are understood across the broader system in which it operates.

Desktop review

A structured desktop review was undertaken to establish context and understand MI's current operating environment. This review covered internal and external material including governance and strategy documents, risk and compliance material, financial information and workforce documentation. The purpose was to develop a baseline understanding of MI's institutional setting, operating model and strategic priorities.

Survey

A survey was conducted to gather perspectives from a broad cross-section of stakeholders connected to MI. A total of 225 responses were received. Survey questions focused on MI's external environment, emerging strategic shifts, perceptions of MI's purpose and preparedness, and areas where the organisation should focus in the future.

Respondents represented a mix of staff, customers and industry stakeholders. The largest respondent group was MI employees and staff (36.4%), followed by customers engaged in broadacre or seasonal cropping (28.4%). Other respondent groups included residential customers (14.7%), stock and domestic customers (14.2%), and customers with permanent plantings both large (12%) and small (8.9%). Smaller segments included industry or research organisations (5.8%), other stakeholder groups (2.7%), contractors or suppliers (2.2%), local government (1.3%) and industrial customers (0.9%). No responses were received from state or federal government representatives or environmental and cultural water users.

As MI staff made up the largest segment of respondents, aggregated survey results should be interpreted with this weighting in mind. While the survey provides valuable insight into operational perspectives, it may reflect internal views more strongly than those of external stakeholders.

Targeted interviews

To deepen the insights gathered through the survey, Lecroma and VUCA conducted targeted interviews with 44 stakeholders. Participants included MI executives and staff, key irrigation customers, government and basin management representatives, industry and commodity bodies, corporate agribusinesses and water-dependent enterprises, and local government representatives.

These discussions explored how participants see the future of irrigation in the region, the role MI should play in that future, and the risks and opportunities likely to shape the organisation over the coming decade.

Leadership workshop

An internal workshop was also held with MI's Leadership Forum. This session tested and explored themes emerging from the survey and interviews, including MI's purpose, water scarcity and the implications of farm consolidation and aggregation.

The workshop provided an opportunity to validate emerging insights, test areas of agreement and tension, and examine what the findings may mean for MI's strategic direction.

What this means for the insights brief

Taken together, these methods provide a cross-section view of MI from multiple vantage points: internal operations, customers, industry stakeholders and regional institutions. While each source has its own limitations, the convergence of themes across surveys, interviews and workshops provides a strong signal about the structural issues shaping MI's future.

The findings that follow should be read as patterns emerging across the system in which MI operates. These patterns form the basis for the themes and strategic implications explored in the remainder of this insights brief.

Tasks completed to inform this document:

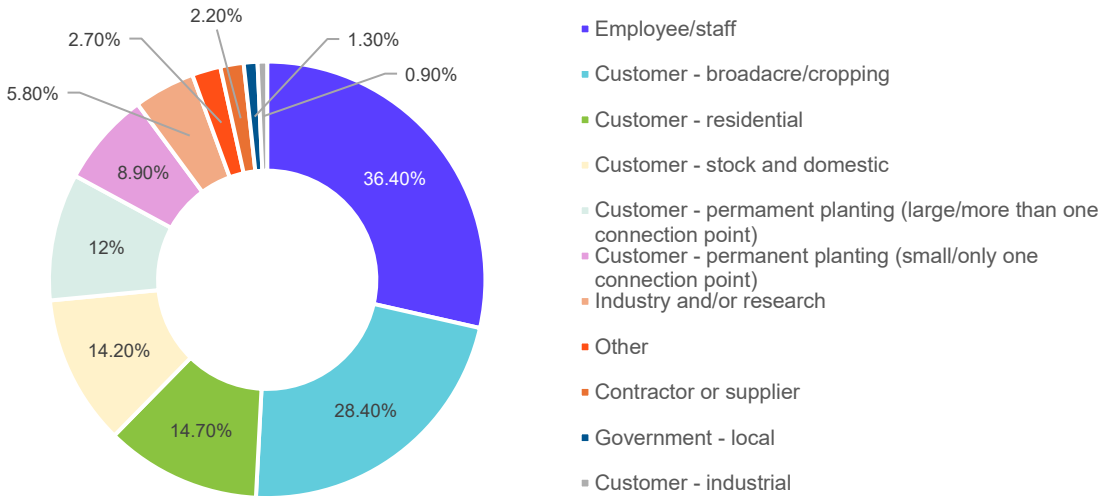
Desktop review

Spanned documentation including policies, procedures and reports across governance, risk and strategy, stakeholders, finance and workforce

Survey - 225 respondents

Survey questions centred around MI's external environment and strategic context, MI's purpose, risk and preparedness and areas where MI should focus in the future

Respondent segments included (from largest to smallest):



No respondents were from State/Federal Government or environmental and cultural customer groups

As MI staff made up the largest segment of respondents, aggregated results may be skewed towards staff perceptions

Targeted interviews

Consulted with 44 individuals which were made up of:

- MI executives and staff
- Industry and commodity representative organisations
- Key customers
- Corporate agribusiness and water-dependent enterprises
- Government, regulatory and basin management bodies and experts
- Local Government and regional authorities

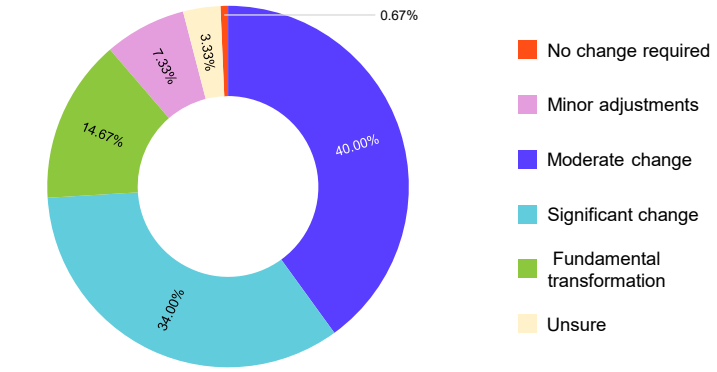
Workshop

With MI's Leadership Forum, where key themes from consultations were explored further with MI's leaders. These themes included MI's purpose, water scarcity
and farm aggregation

3. Context and history: MI at a point of inflection

Murrumbidgee Irrigation (MI) operates within a long institutional and infrastructure history that continues to shape its role today. The organisation sits at the centre of one of Australia's most productive irrigated regions, and its development reflects broader shifts in water policy, agriculture and regional economies. Understanding this trajectory helps explain why
MI now faces a period of strategic transition.

Figure 1: Strategy survey stakeholder perceptions about how much change MI requires to stay effective



Origins: irrigation as regional development

The Murrumbidgee Irrigation Area (MIA) emerged in the early twentieth century as part of a national effort to unlock inland agricultural productivity. The construction of Burrinjuck Dam and the development of a large irrigation network enabled the settlement of farming communities across the Riverina.

For much of the twentieth century these irrigation systems were operated by government authorities. Their purpose was straightforward: deliver water reliably at scale to support agriculture and regional growth. Infrastructure was designed for permanence and broad use, serving farming communities largely made up of smaller family enterprises.

This period established several foundations that still shape MI today. Irrigation infrastructure underpins regional economic activity, farming communities depend heavily on reliable water delivery, and irrigation operators remain subject to close public scrutiny because of their role in managing a critical resource.

Structural reform and irrigator ownership

A significant shift occurred in 1999 when MI transitioned from a government entity to an unlisted public company owned by irrigators. This reform changed the organisation's governance model and responsibilities.

Irrigators became shareholders rather than simply customers, giving them a direct stake in how the organisation is run. At the same time, MI assumed responsibility for managing and renewing extensive infrastructure while maintaining affordable and reliable water delivery.

This ownership structure continues to influence expectations today. MI must balance commercial discipline with its role as a service provider embedded in the regional community. Questions of fairness, transparency and pricing carry particular weight because they affect both customers and shareholders.

Operational and agricultural change

Over the past two decades, irrigation systems across the region have undergone substantial modernisation. Automation and digital monitoring technologies have significantly improved the precision and reliability of water delivery, supporting the development of higher-value crops and more sophisticated farming systems.

At the same time, the agricultural structure of the region has been changing. Farms are consolidating as older operators retire and larger enterprises expand. This shift brings new expectations around reliability, service models and data integration between irrigation networks and on-farm technologies.

These changes place pressure on traditional service models that treated all customers in largely the same way.
Larger, capital-intensive operations often require more tailored delivery and scheduling, while smaller operators remain an important part of the irrigation community.

Policy pressures and emerging shifts

MI's operating environment is also shaped by wider policy and market forces across the Murray-Darling Basin. Water reform, environmental recovery programs and ongoing debate about basin management continue to influence water availability and regional economic stability.

Alongside these policy dynamics, several broader shifts are becoming more prominent. Stakeholders consistently identify sustainability and resource efficiency, governance expectations, climate variability and digital technology as the major forces likely to shape MI's future operating environment.

What this history means now

MI operates within several overlapping transitions. It manages infrastructure originally built for a government-led irrigation scheme, but under a shareholder ownership model. It supports an agricultural sector that is becoming larger, more capital intensive and more technologically advanced. And it operates within a policy environment where water management remains highly contested.

These historical layers explain why the organisation now faces complex strategic choices. The themes explored in the remainder of this insights brief examine how climate variability, farm consolidation, technology and governance expectations are reshaping the context in which MI must operate.

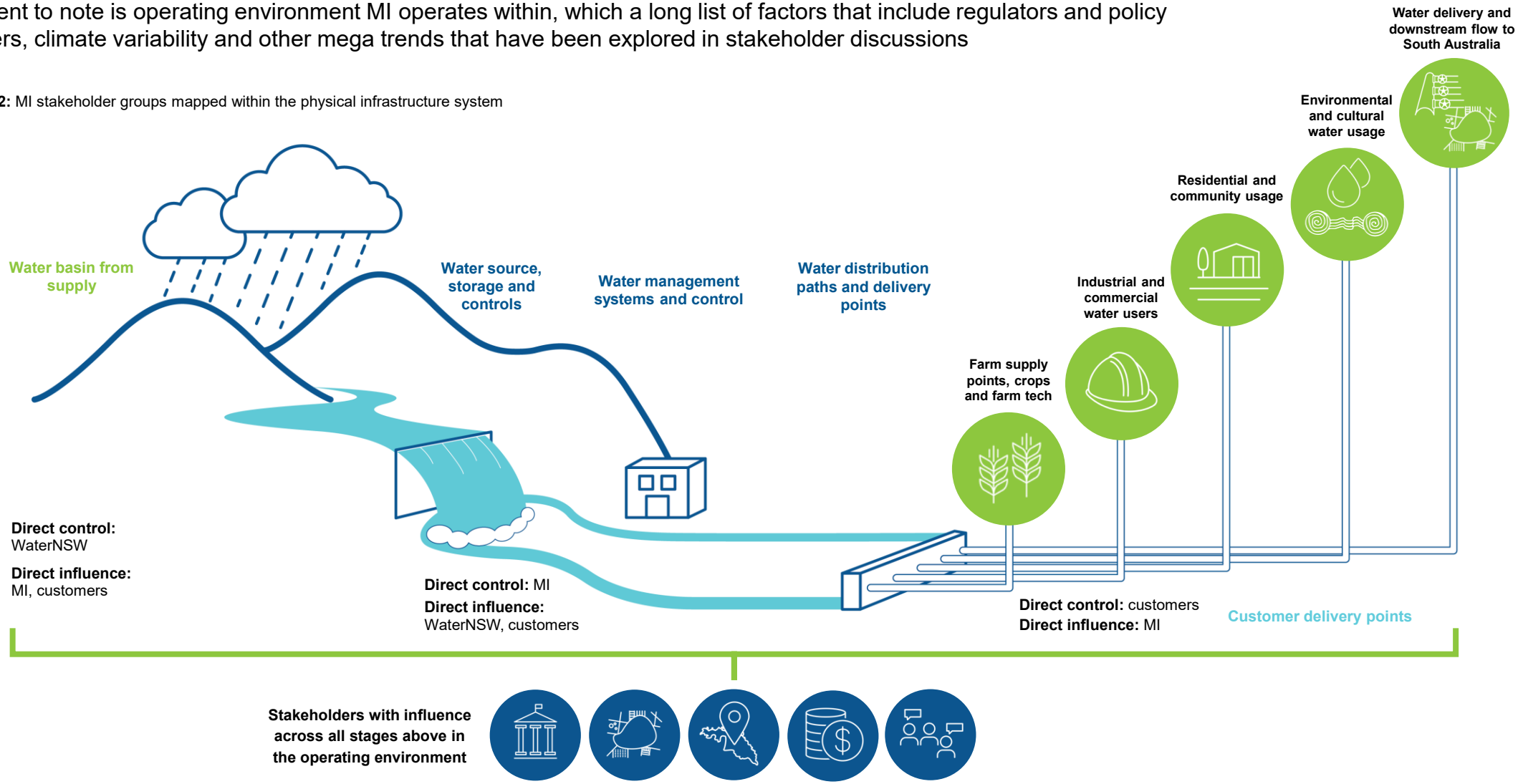
A broad map of MI's stakeholders

Stakeholder Groups		Who This Includes	Most Significant Consequences if MI Fails to Deliver	Influence on MI	Dependence on MI
	**Irrigation Customers**	Broadacre, permanent plantings and mixed farming enterprises supplied by MI	Crop loss, reduced yield and quality, stranded input costs, increased debt stress, loss of intergenerational confidence in the scheme. Regional agricultural output and economic stability decline	High	High
	**Industrial and Commercial Water Users**	Food processors, wineries, feedlots, manufacturers and other bulk commercial users	Plant shutdowns, product spoilage, workforce stand-downs, contractual breaches, safety risk. Concentrated economic impact and rapid political escalation	High	High
	**Residential and Town Water Supply**	Local government supply arrangements and connected households	Immediate community dissatisfaction, political pressure, reputational damage disproportionate to volume supplied. Loss of social license	Medium	High
	**Water Entitlement Holders (Governance Stakeholders)**	Customer-shareholders (entitlement owners), environmental water managers (government agencies), cultural water entitlement holders (Traditional Owner entities)	Loss of confidence in system stewardship, disputes over fairness and prioritisation, pressure to change rules, pricing structures or governance settings	High	High
	**Regulators and Policy Makers**	NSW and Commonwealth water agencies, Basin authorities, compliance and safety regulators	Intervention, tighter licence conditions, increased reporting burden, reduced allocation flexibility, capital planning constraints. Structural impact on MI's operating model	Very High	Medium
	**Interconnected System Operators**	Peer irrigation corporations, bulk water and storage operators, delivery coordination bodies	Delivery inefficiencies, coordination disputes, shared reputational damage across the sector, increased operational constraints	Medium	Medium
	**Downstream and Basin Stakeholders**	Downstream irrigators, river-dependent communities and industries, ecological assets	Perceived or actual environmental and economic harm leading to political scrutiny, reform pressure and loss of basin-wide legitimacy	Medium	Medium
	**Regional Influence and Advocacy Stakeholders**	Commodity groups, irrigator councils, regional business associations, local councils	Escalation of sector-wide campaigns, coalition pressure on policy makers, erosion of regional social licence	High	Low
	**First Nations Communities**	Traditional Owner groups and Aboriginal organisations across the MI footprint (beyond formal entitlement holdings)	Cultural and heritage impacts, breakdown in trust and partnership, increased dispute and project delay risk, reputational harm	Growing	Medium
	**Investors and Financial Partners**	Investment managers, lenders, funding partners	Reduced confidence in governance and asset renewal discipline, higher cost of capital, constrained funding flexibility	High	Medium
	**Media and Public Opinion (Narrative Amplifiers)**	Regional and national media, rural press, digital platforms, opinion leaders	Rapid narrative escalation, political intervention risk, long-term reputational damage even after operational recovery	High	Low

Stakeholders mapped within MI's infrastructure environment

When we map these core stakeholders groups and a narrow perception of MI's purpose into a diagram, we get a stronger sense of where MI's ability to directly control or influence situations are. Similarly with MI's customers. The overarching element to note is operating environment MI operates within, which a long list of factors that include regulators and policy makers, climate variability and other mega trends that have been explored in stakeholder discussions

Figure 2: MI stakeholder groups mapped within the physical infrastructure system



4. Themes that have emerged

Consultation highlighted a set of structural shifts reshaping the environment in which Murrumbidgee Irrigation operates. Climate variability, consolidation in farm businesses, technological change, evolving customer expectations and growing financial pressures are all influencing the irrigation system and the regional economy it supports. These forces are interconnected and are expected to intensify over the coming decade, creating a more complex and less predictable operating environment for irrigation infrastructure.

The themes that follow summarise the most consistent signals emerging from interviews, survey responses, staff discussions and supporting research. Each theme describes a key structural change underway and explores its implications for MI's role, operating model and strategic choices. Together, they provide a practical lens for understanding how the irrigation system is evolving and where MI may need to adapt to remain effective and trusted in the region.

Climate variability and adaptation

Farm consolidation and aggregation

Technology, interoperability and AI

MI purpose, narrow vs broad

Capital expenditure, commercialisation and efficiency

Culture, workforce development, customer service and social license

Theme One: Climate variability and adaptation

Climate change and emissions reduction remain politicised and polarising issues in regional Australia. This section is focussed on changes unfolding and the commercial drivers for change.

> *"Climate resilience and adaptation, we're seeing it right now, so it is real. More intensity and frequency of extremes"*

Stakeholders repeatedly pointed to increasing climate variability as the defining challenge for irrigation systems over the next decade. This variability is already manifesting through more frequent drought cycles, hotter summers, and extreme rainfall events that stress infrastructure and water planning. Many participants framed the future as one of greater volatility rather than gradual change, requiring both MI and irrigators to become more adaptive.

Stakeholders described this future less as a steady decline and more as increasing volatility in water availability. As one interviewee summarised:

> *"Climate change is really about feast and famine with water."*

Survey respondents reinforced this perception. Climate adaptation ranked among the most transformative strategic shifts expected to affect MI over the next ten to twenty years, with a large majority of respondents identifying it as either a transformative or major impact on the organisation.

Operationally, stakeholders described several consequences for MI:

- Declining reliability of general security water
- Higher peak demand events during extreme heat
- Greater stress on infrastructure and delivery networks
- More complex flood management during extreme rainfall

The growing frequency of extreme events was seen as creating new strategic questions for MI, particularly around infrastructure design and asset management. The existing system was largely designed for historical climate patterns rather than the more volatile and extreme conditions now emerging.

Several interviewees also emphasised that adaptation is not just MI's responsibility. Farmers themselves are already adjusting production systems, crop mixes and technology use in response to changing conditions. One participant noted that irrigators are often more innovative than they are given credit for:

> *"I don't think we, as MI, give them credit for how innovative some of the younger guys are… with soil moisture probes, tractors and on-farm technology."*

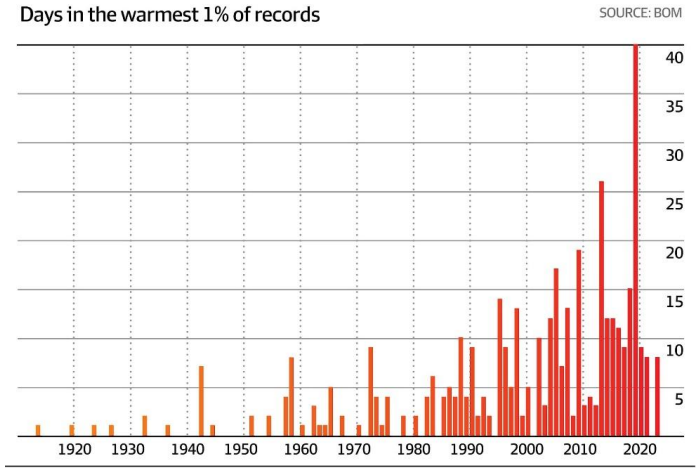
From a governance perspective, climate adaptation was also linked to regulatory pressure and social license. Board members noted that climate adaptation and environmental sustainability expectations are increasingly becoming a baseline requirement for operating infrastructure organisations, not an optional policy agenda.

> *"MI needs to be greener […] needs to be 'doing the right thing"*

Rising temperatures are already reshaping the operating environment for irrigated agriculture across the Murray-Darling Basin. Average temperatures across the Basin have increased by approximately 1.4°C since 1910[1], and the number of extreme heat days and the cost of weather-related disasters are both rising across Australia.

The impact of rising temperatures across Australia is evident in the increase in the number of days in the warmest 1% and cost of extreme weather events.

Figure 3: Days in the warmest 1% of records[2]

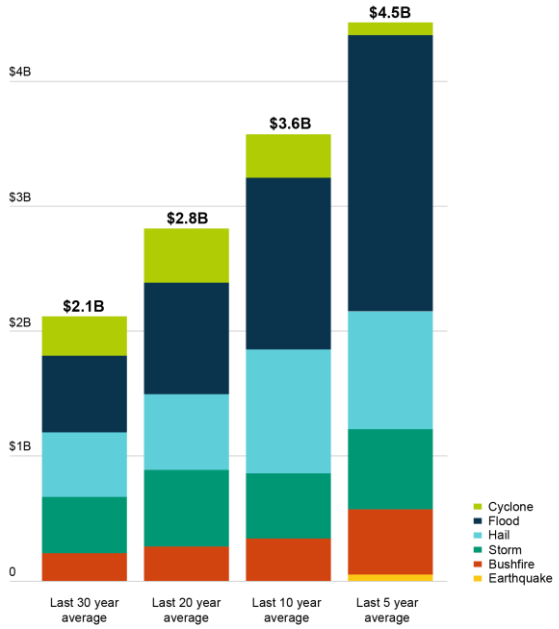


Climate projections indicate this warming will intensify. New South Wales is expected to warm by around 2.1-2.6°C, with inland regions warming more significantly, potentially reaching 3.0-3.7°C, particularly during summer. These changes are closely linked to projected declines in water availability. The Murray-Darling Basin Outlook (2025) notes that runoff and water availability are very likely to decline due to reductions in cool-season rainfall, while droughts are expected to become more severe, more frequent and longer in duration. At the same time, while moderate floods may decline, very large flood events may increase.

The Insurance Council of Australia's Catastrophe Resilience Report notes that the cost of extreme weather events is increasing in real terms, reflecting both the growing frequency and severity of climate-related disasters. As these costs rise, insurance premiums for infrastructure and agricultural assets are expected to increase, adding another layer of financial pressure across climate-exposed sectors.

[1] 2025 Murray-Darling Basin Outlook: Summary Report November 2025
[2] Bureau of Meteorology

Figure 4: Insurance CA cost of extreme weather[3]



Infrastructure stress rises sharply above 2.0°C (CSIRO, 2023) and businesses will need to simultaneously adapt to an increasing number of extreme events.

Commercial Drivers

Commercial pressures linked to emissions reduction are beginning to reshape agricultural supply chains. Globally, 79% of listed companies now report Scope 1 and 2 emissions, and 56% report some Scope 3 supply chain emissions. Carbon taxes now exist in more than 40 countries, and major economies including the EU and UK are implementing Carbon Border Adjustment Mechanisms that embed emissions performance into trade. MIAs farmers whose products are globally exposed commodities will need to respond to this new world.

Australia's new emissions reporting regime, to be phased in between 2025 and 2028, will extend emissions reduction reporting obligations across large parts of the economy and have a sweeping impact on supply chains.

[3] Insurance Council of Australia Insurance Catastrophe Resilience Report 2023-24

This impact will be amplified by media attention during 2026 - 2028 reporting seasons on company emissions performance. In turn, this will heighten employee, consumer and community awareness of emissions reduction and sustainability. Banks are also reducing emissions e.g. NAB is offering a 1% plus interest rate incentive to drive emissions reduction in its loan portfolio.

Evidence from interviews suggests these pressures are already reaching irrigated agriculture, with corporate buyers and financial institutions beginning to request emissions data and sustainability commitments from MI growers.

Figure 5: MI's customers (De Bortoli) and players in the supply chain (Coles) are already marketing to consumers their efforts towards greater sustainability leading to pressure on suppliers to be more sustainable

In effect, climate adaptation is already both a physical and commercial reality for irrigation regions.

Strategic implications for MI

For MI, the 'so what' is clear: a hotter climate will increase irrigation demand while making water supply less predictable.

Higher temperatures and more frequent heatwaves will increase water demand during peak periods, particularly for permanent plantings such as almonds, citrus and olives that require significant water during extreme heat. In water-scarce years this may drive greater diversification toward annual crops, shifting the timing and volatility of water demand across the network.

At the same time, customers will expect greater reliability during extreme conditions, even as infrastructure stress and failure risks increase. As one survey respondent noted:

> *"Consideration should be given to [MI] incorporating operational [and system] flexibility to adjust to evolving climate conditions."*

Customers are also likely to expect stronger action to reduce evaporation, seepage and water losses, particularly during periods of scarcity.

These pressures highlight a core strategic challenge. Much of MI's infrastructure was designed for historical climate conditions, not the hotter and more volatile operating environment now emerging. As one board member observed:

> *"Climate adaptation and ESG reporting are now costs of doing business."*

The implication is that MI's asset management, technology adoption and capital planning will increasingly need to be designed for a hotter system. This includes stronger network resilience, predictive maintenance, digital monitoring and investments that improve water delivery efficiency.

At the same time, the transition toward lower-emissions supply chains presents potential opportunities. These include supporting customers with emissions data, sustainability reporting, sustainability consulting support, carbon farming opportunities and partnerships that strengthen the market position of irrigated agriculture in the region.

Strategic opportunities suggested by interviewees included:

1. Partnering with environmental water holders to improve biomass and biodiversity in wetlands, capturing the carbon credits and building social license
2. Carbon farming on MI land and channel reserves
3. Creating a Murrumbidgee area sustainability and net zero ecosystem to give MI customers a competitive advantage in domestic and global markets

Taken together, rising temperatures are not simply an environmental risk. They represent a core operating constraint that will shape infrastructure, farming systems and market access across the MIA over the next decade.

Table 1: Summary of strategic implications for MI

Strategic implication	What it means for MI	Why it matters
Hotter climate will increase peak irrigation demand	Higher temperatures and more extreme heat days will drive stronger and more volatile irrigation demand, particularly for permanent plantings during heatwaves	MI will face pressure to deliver water reliably during extreme conditions when demand is highest and operational stress on the network is greatest
Greater climate volatility in water supply	Reduced runoff, more severe droughts and occasional large flood events will make water availability less predictable	Planning, allocation and infrastructure management will need to account for more frequent swings between water scarcity and surplus
Changing cropping systems and water demand cycles	Rising temperatures and water costs may make some permanent plantings harder to sustain, potentially shifting production toward more flexible annual crops	Water demand patterns across the irrigation network may become more variable, requiring changes in delivery planning and operations
Increasing customer expectations of reliability and efficiency	Irrigators are likely to expect more responsive delivery during extreme heat events and stronger efforts to reduce evaporation, seepage and water losses	MI's performance will increasingly be judged on its ability to maintain reliability under more extreme operating conditions. Water losses will be economically and socially less acceptable
Infrastructure resilience and asset management pressures	Extreme weather events increase the likelihood of asset failures and infrastructure stress at the same time as demand increases	Asset management, maintenance planning and capital investment will need to prioritise resilience, redundancy and system reliability
Need for technology and data-driven operations	Digital monitoring, predictive maintenance and automation will become increasingly important for managing system performance in extreme conditions	Technology adoption can improve operational flexibility, reduce water losses and support faster response during climate events
Emissions reporting and supply chain pressures on MI and customers	Sustainability reporting, carbon pricing and supply chain emissions requirements are beginning to influence agricultural markets	MI customers will face growing pressure from buyers, regulators and financiers to measure and reduce emissions. MI's social license will increasingly be underpinned by emissions and environmental sustainability performance.
Emerging opportunity for MI to support customer adaptation	MI could potentially provide emissions data, sustainability support, carbon market participation or environmental partnerships	Supporting customers through climate transition may strengthen regional competitiveness and MI's social licence. Opportunities will require partnering with customers (farmers, environment and industrial)
Strategic positioning of the region in a lower-emissions economy	Sustainability credentials and emissions performance may influence access to global agricultural markets	A coordinated sustainability approach across the MIA could help irrigators maintain market access and competitiveness

Theme Two: Farm consolidation and aggregation

Across interviews, survey responses and industry data, stakeholders consistently described the irrigation sector as undergoing a structural shift toward larger, more capitalised farm enterprises. This theme focusses on agriculture as it's a significant customer segment for MI. However, MI is also seeing a shift in other areas of its customer base, particularly growth in peri-urban residential customers and industrial business customers.
The farm consolidation trend is occurring across Australian agriculture and is already visible within the Murrumbidgee Irrigation Area (MIA). Farm businesses are increasingly scaling up through land aggregation, corporate investment and generational transition, while a proportion of smaller irrigators are experiencing financial pressure and considering exit.

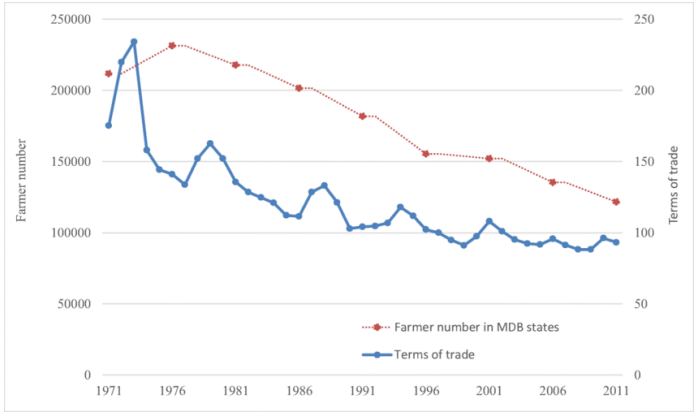
"Small farms very difficult to be viable, more and more companies coming into the irrigation sector."

National data reinforces this pattern. In Australia between 1999-2000 and 2022-23 the number of broadacre and dairy farms declined by an estimated 33%[4].

In Murray Darling Basin (MDB) states, farmer numbers have decreased roughly in line with decreasing in agricultural profitability and terms of trade between 1971 and 2021 (See **Figure 6** below). This structural adjustment appears likely to continue as climate variability, water security concerns and rising operating costs increase the capital and scale required to remain competitive.

Through consultation, stakeholders emphasised that there were clusters of farmers in the MIA that were struggling financially and are exploring exit options, while there were other clusters of farmers seeking to scale up their operations. This is validated by evidence that in the Murray Darling Basin, there is a divergence between growth oriented and exit oriented farmers. Evidence suggests that approximately a third of irrigators in southern MDB are seeking to expand their farm, while another third are transitioning or downsizing[5].

Figure 6: Farmer numbers in the MDB and terms of trade from 1971-2021[6]



Stakeholders also noted that consolidation is changing the nature of MI's customer base. Larger enterprises are becoming more corporate in structure, often operating with professional management teams, advisers and more sophisticated capital backing. These businesses are typically more technology-enabled and commercially focused, and expect a higher level of transparency, integration and responsiveness from service providers.

"The demographic of the irrigation industry is shifting toward larger, amalgamated farm holdings."

A long tail of smaller irrigators continues to make up a large share of MI's customer base. These operators often require more direct engagement and operational support. Several interviewees noted that servicing a large number of smaller customers can consume a disproportionate share of MI's customer service resources, even though water volumes delivered may be relatively small.

Stakeholders also pointed out that consolidation may simplify some aspects of relationship management over time. Fewer, larger enterprises may mean fewer individual relationships to manage, but those relationships will likely be more commercially sophisticated, geographically dispersed and strategically important.

Research also indicates that irrigation farm exit will continue to increase in the future as the MDB sees further impact of climate change[7]. When farmers exit, the more common outcome is often restructuring rather than closure, with land sold to larger corporatised or neighbouring operators, shifted into other commodities, or moved partly out of irrigation into dryland or residential uses. This can create a mothball patchwork across the MIA, where some land remains underused and irrigation demand becomes less consistent, with flow-on effects for regional activity, service demand and the productive use of shared infrastructure.

Interview feedback reinforced that this transition is already underway and expected to continue. Overall, the evidence suggests MI's customer base will become progressively more concentrated over time, with fewer but larger irrigators accounting for an increasing share of water demand and regional agricultural output.

[4] Snapshot of Australian Agriculture 2025 - DAFF
[5] Expanders, diversifiers or downsizers? Identifying clusters of irrigators' water trade and farm management strategies in Australia - ScienceDirect
[6] Wheeler Et. Al. (2023) https://www.mdba.gov.au/sites/default/files/publications/mdb-outlook-economic-literature-review2.pdf
[7] https://www.mdba.gov.au/sites/default/files/publications/bp-eval-2020-plausible-climate-futures.pdf

Strategic implications for MI

Farm consolidation will reshape the structure of MI's customer base over the coming decade. Consultation indicates that the irrigation sector is diverging into clear groups: growth-oriented enterprises scaling up through land and water acquisition, and smaller irrigators facing rising financial pressure and considering exit.

Crop diversification will occur simultaneously as large scale businesses can utilise their capital to invest in machinery and systems to switch plantings. Over time this is likely to mean fewer individual customers accounting for a greater share of water demand and regional production. As one stakeholder observed, "farm businesses are changing rapidly," and the consolidation "trend is happening now and will continue." For MI, this implies a customer base that is simultaneously shrinking in number while becoming more commercially sophisticated and concentrated.

Water security will play a decisive role in determining which businesses expand and which exit. Stakeholders consistently linked farm viability and expansion decisions to confidence in water availability. In a more climate-variable future, enterprises with stronger balance sheets and greater access to capital will be better positioned to secure water and invest in resilient production systems. Research reinforces this dynamic, noting that "one of the biggest concerns around expansion for many irrigators is water security." For MI, this means that system reliability and transparency around water delivery will become increasingly central to the long-term competitiveness of its customers.

The shift toward larger and more corporatised farm enterprises will also change expectations of MI as a service provider. Larger operations increasingly operate with management teams, advisers and technology-enabled production systems. These businesses expect timely operational data, integration with on-farm technology and clear commercial communication. As one internal stakeholder noted, consolidation may mean MI's customer team will "stop dealing with a farmer dealing with tech and start dealing with a Chief Information Officer and other specialists." This signals a likely shift toward more strategic account management, deeper technical capability and stronger digital integration between MI systems and farm operations.

At the same time, consolidation raises questions about the efficiency of MI's current service model. Interviewees noted that smaller customers often require significant engagement relative to the amount of water they use. As one stakeholder reflected, "small customers take up a disproportionately large amount of MI's time." While these customers remain an important part of the membership base, the ongoing structural shift suggests MI may need to reconsider how customer service resources are allocated as the profile of its customer base changes.

Finally, consolidation implies that farm turnover and structural adjustment will remain ongoing features of the irrigation landscape. Periods of low allocations or sustained commodity downturns are likely to increase exit and aggregation across the region. For MI,
this means planning for a more dynamic customer base where properties change ownership and farm scale evolves over time. Systems, engagement processes and governance arrangements will need to accommodate this transition while maintaining operational stability across the network.

Table 2: Summary of strategic implications for MI

Strategic implication	What it means for MI	Why it matters
Customer base becoming more concentrated and corporatised	Over time MI is likely to serve fewer individual customers who account for a larger share of total water demand. These enterprises will typically be larger, more capitalised and more professionally managed	A more concentrated customer base increases the strategic importance of large customers and changes the nature of relationships MI manages. Decisions affecting reliability, pricing and service delivery will have greater commercial implications for key customers
Diverging customer segments (expansion vs exit)	MI will increasingly serve two distinct customer groups: growth-oriented enterprises expanding operations and smaller irrigators under financial pressure or considering exit	These groups have different needs and expectations. Expansion-oriented enterprises seek reliability, scale and data-driven service, while smaller irrigators often require more personal operational engagement and support
Water security shaping farm viability and expansion	Reliable and transparent water delivery will become even more central to farm investment decisions and the ability of enterprises to expand or remain viable	In a more climate-variable future, water reliability becomes a competitive advantage for the region. Confidence in MI's delivery system directly influences farm investment, land values and regional productivity. Partnering with customers to support on farm technology precision ordering and demand forecasting will be increasingly important
Shift toward more sophisticated customer expectations	Larger enterprises will expect stronger operational transparency, digital integration with on-farm systems and more strategic engagement with MI	The relationship may increasingly involve management teams, advisers and technology specialists rather than individual farmers. MI's customer engagement model will need to evolve accordingly
Pressure on the current customer service model	Smaller customers currently require a high level of engagement relative to water use, while larger enterprises may require more technical and strategic interaction	MI may need to reconsider how customer engagement resources are structured to maintain efficiency while remaining fair to all members
Ongoing farm turnover and structural adjustment	Farm aggregation and ownership changes are likely to continue as businesses scale up and others exit the sector	MI will operate in a more dynamic customer environment where properties change hands and farm scale evolves. Systems and engagement processes need to accommodate this transition while maintaining operational stability

Theme Three: Technology, interoperability and AI

Technology and data were repeatedly identified by stakeholders as central to the future of irrigation systems. Importantly, several participants noted that water management has always relied on data. Irrigation networks have long depended on measurement, flow monitoring and operational judgement informed by hydrology and engineering. What is changing now is the precision, speed and scale at which data can be generated, analysed and applied.

This shift is moving irrigation management from periodic measurement toward increasingly precise and near real-time system visibility. In practical terms, this means the ability to track flows across the network more accurately, detect inefficiencies earlier and respond more quickly to changes in demand or system conditions. As one stakeholder observed:

> *"Modern irrigation companies should now have the ability to see where the water is, where it needs to go, and where inefficiencies exist in near real time."*

Stakeholders broadly agreed that digital capability will play a much larger role in irrigation operations over the coming decade. However, there was far less agreement about how that transition should occur or what MI's role should be within it. Several participants noted that while the direction of travel is clear, the pace, sequencing and governance of that transition remain uncertain.

Changing expectations of farmers

At the same time, technology adoption on farms is increasing. Global digital agriculture markets are growing rapidly and are projected to reach approximately USD 51.3 billion by 2033[8]. Survey respondents and interview participants described increasing automation, sensor deployment and data-driven decision-making on farms, as well as greater interoperability between irrigation systems, storage infrastructure and farm management technologies.

However, adoption across the Murrumbidgee Irrigation Area remains uneven. Larger, expansion-focused farm enterprises are typically more willing and able to invest in digital infrastructure. Smaller or ageing operators may face barriers related to cost, digital capability and trust. Several stakeholders warned that this could lead to a widening digital divide across the irrigation community over time.

Technology acceptance was repeatedly linked to trust and usability. Stakeholders emphasised that digital systems will only gain traction if they are simple, transparent and clearly useful in day-to-day farm management. One interviewee summarised the issue directly:

> *"Technology needs to be easy to understand - if they don't understand it, they don't trust it."*

Data governance and trust

Data governance was another recurring theme. Water information is commercially valuable and politically sensitive within the Murray-Darling Basin. Several interviewees noted that there is "lots of sensitivity around water data in the region". The growing value and visibility of water information means that data governance, ownership and transparency will be central to any future interoperability initiatives.

Customers consistently described a desire for more practical and actionable information to support operational and investment decisions on farm. Expectations raised during consultation included:

- accurate, transparent and defensible metering
- real-time visibility of water use, orders and delivery status
- clearer information on system capacity and delivery constraints
- better visibility of water market activity and allocation outlook
- data to support crop planning, irrigation timing and investment decisions
- integration with existing farm management systems rather than creating parallel platforms
- earlier signals on seasonal conditions, demand patterns and system risks
- simple, reliable digital tools rather than complex platforms
- transparency around how MI data is used in operational and pricing decisions

Taken together, these expectations reflect a broader shift in how water is being viewed by producers and supply chains. Several stakeholders suggested that water is increasingly being treated less as a simple commodity and more as a digitally traceable resource. One stakeholder described the shift in the following terms:

> *"Water starts to look like a digital commodity - it's trending toward this level and higher degree of scrutiny of water moving around the basin."*

This shift toward greater traceability is linked to wider pressures in global food and fibre markets. Sustainability reporting, supply chain transparency and environmental accountability are increasing expectations on agricultural production systems. These pressures are likely to increase the demand for more precise and verifiable water data over time.

MI's internal data and systems

Within MI itself, staff described both progress and unrealised opportunity in how data is used across the organisation. Investment in automation and digital control systems over the past decade has already delivered measurable operational improvements. Stakeholders noted that automation has improved efficiency across the network and reduced conveyance losses.

Staff also described a shift toward a more data-informed operating model, where operational decisions are increasingly supported by system data rather than relying solely on experience or judgement.

[8] Digital Agriculture Market Size, Share & Forecast - 2033

However, much of the data already collected across MI's systems is not yet fully integrated or consistently used across the organisation. Several staff observed that operational, asset and customer systems do not always connect effectively, limiting the ability to use data for forecasting, optimisation or strategic decision-making.

"We collect so much data as a business and we haven't realised the benefits"

Improving interoperability between MI's internal systems was repeatedly identified as a priority. Greater integration would allow operational, asset and customer information to be used more effectively across the organisation, improving planning, asset management and risk forecasting.

Automation and the path toward autonomous operations

"Our people have the perception that we are fully automated"

Despite significant automation investment, the transition toward a fully digital operating environment remains incomplete. Manual interventions still occur frequently across the network, and customer behaviour has not yet fully shifted toward digital channels. MI has begun mapping manual interventions across the system, recognising that this work will be necessary to support further automation.

"…ultimately where I think we'll end up is a much more autonomous, hands-off system that drives itself… we've got a lot of manual intervention now, but if we're truly going to get to a smart integrated autonomous system it's going to take different skills and capabilities."

This reflects both technical and cultural challenges. MI has historically operated within a relationship-based service model, where direct engagement with customers is highly valued. While this approach builds trust and local knowledge, it can also slow the adoption of automation and maintain reliance on manual processes.

Artificial intelligence and advanced analytics

Beyond automation, several stakeholders pointed to the emerging role of artificial intelligence and machine learning. Unlike automation, which focuses on executing predefined processes, AI introduces capabilities such as predictive modelling, optimisation and adaptive system management. There is an understood challenge with integration of agricultural data to fully achieve the gains from AI. According to McKinsey, improving agricultural data integration and connectivity could add approximately $500 billion to global GDP, representing a 7 to 9% uplift on current projections[9].

Stakeholders suggested that AI could support several functions within MI's future operating model, including:

- improving visibility and governance of MI's data holdings
- optimising water delivery across the network
- forecasting demand, system constraints and operational risks
- supporting predictive asset maintenance and network reliability
- integrating operational, asset and customer datasets to improve system visibility
- strengthening long-term planning and scenario modelling
- supporting internal decision-making and corporate functions through advanced analytics and workflow automation
- improving cross-team collaboration by linking operational, asset, customer and planning data across the organisation
- enabling the commercialisation of MI's data, insights and operational expertise

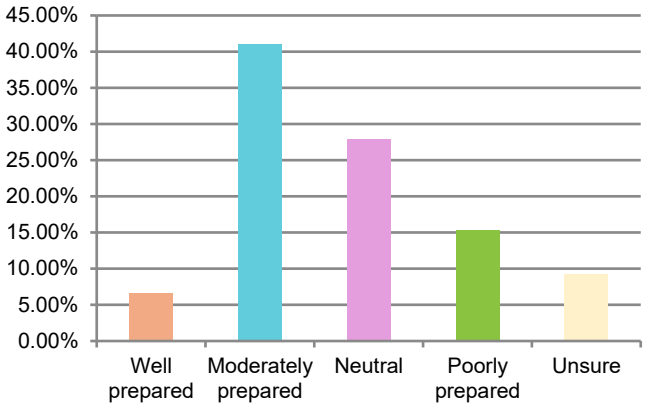
One stakeholder described the broader shift underway across infrastructure sectors:

"There's a big shift toward machine learning and AI to extract insights from the data organisations already have."

However, consultation also highlighted caution around the pace of adoption. Several stakeholders emphasised that effective AI deployment depends on strong data foundations. Ensuring that MI's data architecture, governance arrangements and security settings are robust was widely seen as a prerequisite before scaling more advanced analytics or AI applications.

This sense of caution is also reflected in the stakeholder survey, which highlighted a general perception of unease about MI's preparedness to respond to strategic shifts ahead (see **Figure 7** below).

Figure 7: Strategy survey stakeholder perceptions about MI's level of preparedness to response to strategic shifts in the operating environment



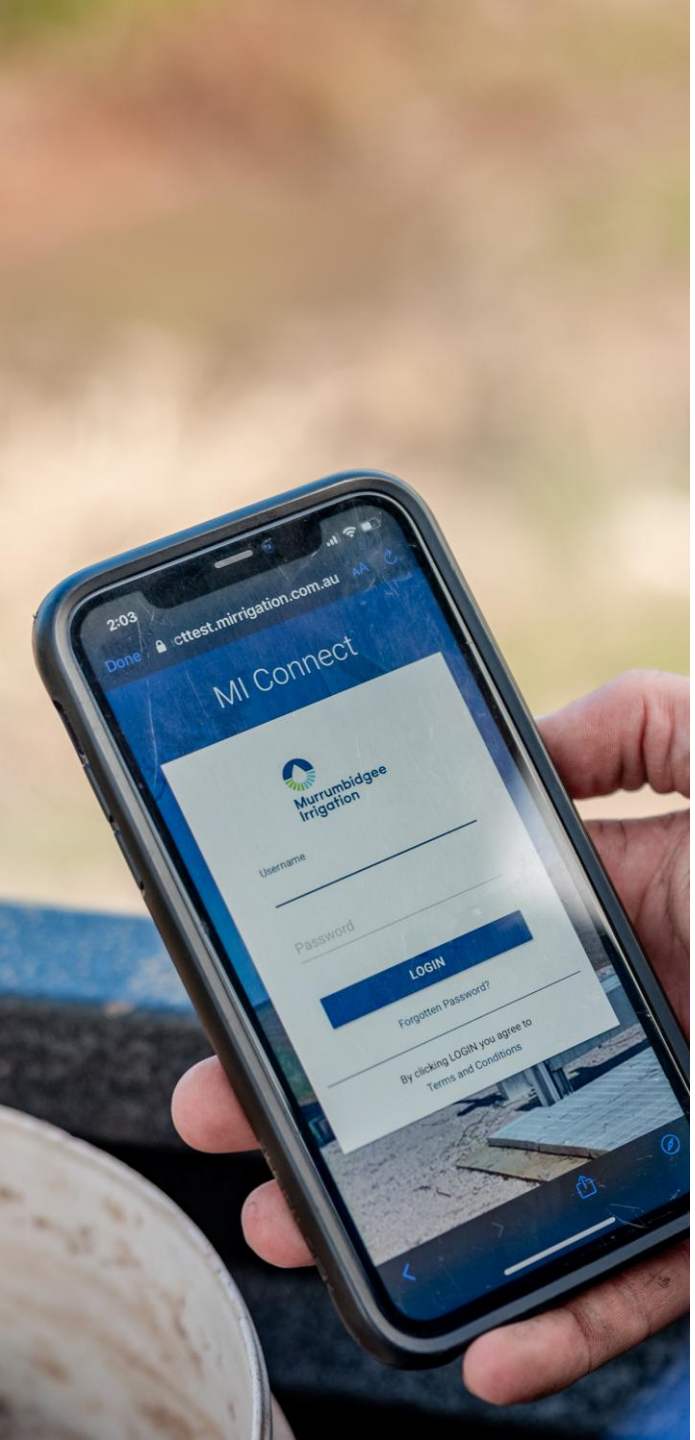
Cyber risk, system resilience and strategic significance

Cybersecurity and system resilience also emerged as important considerations. As irrigation networks become more digitally connected, they may also become more exposed to cyber risks and system disruption. Several stakeholders emphasised the importance of maintaining "human-in-the-loop" operational models that retain manual override capability if digital systems fail.

Some participants framed the issue in broader strategic terms. The irrigation network underpins food production, regional economies and environmental water delivery. As one interviewee observed:

"MI's purpose and systems should be considered critical to Australia's sovereignty and national security, let alone the near-region, including in relation to our ability to produce food and fibre."

[9] https://www.mckinsey.com/industries/agriculture/our-insights/agricultures-connected-future-how-technology-can-yield-new-growth#/



Finally, several interviewees noted that MI holds an unusually valuable dataset. Water delivery volumes, infrastructure performance, crop patterns and regional production trends provide insights that few organisations possess. Some stakeholders suggested that these information assets could support new value-added services or commercial opportunities, provided that farmer consent and clear governance arrangements are established.

Taken together, consultation suggests that technology, interoperability and AI represent both an operational opportunity and a strategic transition point for MI. The issue is not simply the deployment of new systems. The deeper challenge will be managing the governance, trust and organisational change required to ensure those systems are adopted and used effectively.

Strategic implications for MI

Technology, interoperability and AI are emerging as structural forces that will shape how MI operates its network and how it interacts with customers. Consultation suggests the key strategic issue is that digital change is occurring, and how MI positions itself within it while maintaining customer trust will be critical.

The end point will be a fully automated system that is integrated with customer technology enabling precision ordering and demand forecasting that analyses and aggregates data for MI and its customers benefit.

A central insight from stakeholder discussions is that technology expectations across the customer base are diverging. Larger and expansion-focused enterprises are increasingly investing in sophisticated on-farm technology and are seeking seamless integration between irrigation infrastructure and their farm management systems. These businesses often operate with more corporate structures and digital capability, meaning MI may increasingly interact with technical specialists responsible for data, automation and operational analytics.

At the same time, smaller and older operators often face barriers to digital adoption, including cost, capability and confidence in new systems. This creates a widening capability gap across the customer base. In practice, MI's future digital approach will need to support both realities: enabling deeper interoperability for advanced users while ensuring systems remain accessible and trusted for the broader membership.

A second implication is that water is increasingly becoming a data-rich commodity. As allocations become more volatile and water markets more financially significant, irrigators are seeking more precise and transparent information about water availability, delivery and efficiency. Real-time usage data, highly accurate metering and greater visibility of water movements are becoming operational expectations rather than optional features.

For MI, this elevates the importance of data governance, measurement accuracy and digital transparency. In low allocation years, water decisions carry greater financial consequences for irrigators, increasing scrutiny on how water is measured, delivered and accounted for. MI's systems will therefore need to support higher levels of traceability, reliability and analytical capability.

Consultation also highlighted that unlocking the value of data will first depend on improving interoperability across MI's own systems. Significant operational data already exists across the organisation, but it is not always integrated or used strategically. Strengthening internal system integration, data architecture and governance represents one of the most immediate opportunities to improve operational performance.

Sequencing will be important. Several stakeholders cautioned against moving too quickly into advanced automation or AI without strengthening foundational data systems. Establishing clear data structures, governance and internal capability is likely to be a necessary precursor to deeper digital integration with customers or external platforms.

Naturally, trust emerged as a critical enabling factor. Water data is commercially sensitive and politically contested within the basin, and customers are cautious about how information may be used or shared. Any move toward greater interoperability will require clear governance around data ownership, consent and access.

These insights suggest a practical pathway: strengthening MI's internal data foundations first, then progressively expanding interoperability, automation and advanced analytics. If managed well, technology could become a strategic differentiator for MI, improving operational efficiency while supporting more informed decision-making across the irrigation system.

Table 3: Summary of strategic implications for MI

Strategic implication	What it means for MI	Why it matters
Technology expectations across the customer base are diverging	MI will increasingly serve customers with very different digital capabilities. Larger, growth-oriented enterprises are adopting sophisticated on-farm technology and will expect integration between their systems and MI's infrastructure. MI will need to increase engagement with agtech companies. At the same time, smaller or less technologically advanced irrigators may require simpler, more accessible digital services. MI's digital strategy will need to accommodate both groups	As farm businesses scale and professionalise, expectations of interoperability and data integration will increase. If MI cannot meet these expectations, larger enterprises may see the system as a constraint rather than an enabler. Conversely, overly complex systems could alienate smaller customers and erode trust
Water is becoming a data-rich commodity	MI's systems will increasingly need to provide accurate, real-time and transparent data about water delivery, usage and availability. This includes improved metering accuracy, visibility of water movements and data that supports on-farm decision-making	As water becomes more scarce and financially valuable, customers will rely on precise data to manage allocations, trading and production decisions. Greater scrutiny from regulators, markets and supply chains will also increase the importance of transparent and defensible data. MI will have an increasing role in farm data aggregation to support forecasting demand to enhance service delivery
Internal system integration is foundational	MI will need to strengthen interoperability between its internal corporate and operational systems so that data collected across the network can be used for forecasting, asset management and operational optimisation	Significant operational data already exists within MI but is not always connected or used strategically. Better integration could unlock efficiency gains, improve planning and enable more informed decision-making across the organisation
Automation benefits depend on behavioural change	Achieving the full value of automation will require changes in how customers and staff interact with the system. MI may need clearer service standards around manual versus automated processes and improved tracking of manual interventions	The organisation is currently operating in a hybrid environment where digital capability exists alongside manual practices. Without cultural and behavioural change, the benefits of automation may remain partially unrealised
Trust and data governance will shape digital adoption	MI will need clear frameworks around data ownership, consent, privacy and access if it seeks deeper integration with on-farm technology or external platforms. Communication and transparency around how data is used will be critical	Water data is commercially and politically sensitive in the basin. If customers perceive that their data may be misused or shared without benefit to them, adoption of digital platforms and interoperability initiatives could stall
Automation and digitalisation introduce infrastructure security risks	MI's digital strategy will need to incorporate strong cyber security capability, system redundancy and operational resilience. Maintaining manual override capability and robust risk management frameworks will remain important	As irrigation infrastructure becomes more digitally connected, exposure to cyber threats and system disruption increases. Protecting critical water infrastructure will be essential for operational continuity and organisational reputation
AI represents an optimisation opportunity	Once strong data foundations and system integration are in place, MI could apply AI and machine learning to improve forecasting, asset planning, predictive maintenance and network optimisation	AI could enable MI to extract greater value from existing datasets and improve operational efficiency. However, premature adoption without strong data governance and system foundations could introduce risk
Technology leadership could become a strategic differentiator	MI has the opportunity to position itself as a leading technologically advanced irrigation network through improved data capability, transparency and operational efficiency	Strong digital capability could enhance MI's reputation for efficiency and reliability, support better customer outcomes and potentially create new opportunities for value-added services or partnerships in the future

Theme Four: MI Purpose, narrow vs broad

The purpose question is not philosophical. It has practical implications for how MI prioritises its strategy, investment decisions and stakeholder relationships. As the operating environment around irrigation changes, a fundamental question is emerging for Murrumbidgee Irrigation: should MI remain narrowly focused on delivering water, or should its purpose reflect the broader role it plays in shaping the future of the region?

Respondents consistently define MI's core purpose in practical terms: deliver and supply water reliably, efficiently, on time and at a reasonable cost. A narrowly defined purpose provides clarity and operational discipline. It keeps MI focused on what it directly controls: infrastructure performance, operational efficiency and cost management. Maintaining infrastructure, managing the network and ensuring long-term system performance remain the foundation of MI's legitimacy with customers.

Once conversations moved beyond operations, a second layer of expectations appeared. Many stakeholders see MI as more than a delivery utility. Because of its scale and influence in the MIA, MI is widely viewed as a regional institution whose decisions affect agriculture and the broader community.

"[MI's] core role is still to deliver water to customers, in the sense of being a sustainable, efficient, high performing delivery operator."

Previously, MI's leadership drove initiatives that were directly linked to a narrow view of MI's purpose as a water delivery company. This creates a clear tension. One perspective emphasises focus and discipline, arguing MI should remain tightly centred on delivering water efficiently and keeping costs low. The other recognises that MI already operates within a broader regional system and influences productivity, industry development and community confidence. In practice, MI already operates across both spaces.

Several structural shifts are intensifying this discussion, as unpacked in other chapters in this paper. These forces mean that many of the factors shaping irrigation outcomes now sit beyond the delivery network itself.

Some stakeholders noted that defining MI purely as a delivery utility risk overlooking the wider system it operates within. One stakeholder pointed out that prominent businesses in regional communities often need to balance "secondary community leadership piece".

"The organisation operates as a community enabler rather than just a corporate business, given that the local towns were built specifically around this infrastructure."

These comments reflect a practical reality. MI's infrastructure underpins the economic activity of the MIA. Decisions about pricing, infrastructure renewal or technology therefore influence regional outcomes beyond water delivery alone.

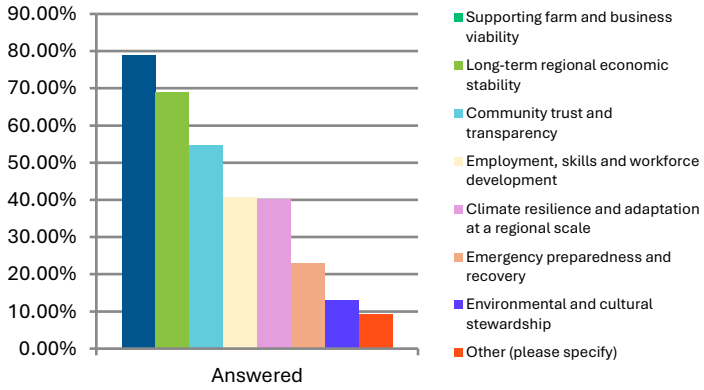
"We wouldn't exist without Murrumbidgee Irrigation… [it's] the foundation of our region"

MI's purpose is also constrained by the Water Management Act 2000 (NSW), objects of the act that are relevant to discussions on MI's purpose include:

(c) to recognise and foster the significant social and economic benefits to the State that result from the sustainable and efficient use of water,
(d) to recognise the role of the community, as a partner with government, in resolving issues relating to the management of water sources,
(g) to encourage the sharing of responsibility for the sustainable and efficient use of water between the Government and water users,
(h) to encourage best practice in the management and use of water

Survey results reinforce that stakeholders do value broader community outcomes from MI's activities. These outcomes are outlined in **Figure 8**.

Figure 8: Survey question: Which community and/or regional outcomes do you think Murrumbidgee Irrigation should focus on in future? Select up to three



Strategic implications for MI

A narrow definition of MI's purpose as purely a water delivery operator risks limiting the organisation's role to the customer outlet. Under this approach, initiatives such as supporting regional economic development, enabling technology interoperability or helping customers improve water efficiency would sit outside MI's scope.

However, a broadly defined purpose also carries risks. Without clear limits and prioritisation it can introduce strategic ambiguity, create expectations that are difficult to measure, and enable stakeholder mandate creep.

The challenge for MI is about articulating a purpose that protects operational focus while recognising the wider irrigation system in which MI operates.

"MI is the arteries of the Riverina. Without MI, we don't get the water."

Table 4: Summary of strategic implications for MI

Strategic implication	What it means for MI	Why it matters
Protect the core water delivery role	MI must keep reliable, efficient and affordable water delivery as the centre of its purpose. Infrastructure performance, network management and cost discipline remain the organisation's primary responsibility	Water delivery is the foundation of MI's legitimacy with customers. If performance or affordability slips, confidence in the organisation weakens quickly
Acknowledge MI's role in the regional system	MI should recognise that its decisions shape outcomes well beyond the outlet. Pricing, infrastructure renewal and technology choices influence agricultural productivity and the stability of local communities	Irrigation infrastructure underpins the economic activity of the MIA. Stakeholders repeatedly described MI as a foundational regional institution rather than simply a utility
Define a two-layer purpose	MI should articulate a purpose that protects operational focus while recognising the broader irrigation system it operates within. The first layer is water delivery; the second is how MI supports system productivity and resilience	Many drivers of irrigation performance now sit outside the network itself. A purely narrow definition risks limiting MI's ability to respond to changing conditions
Set clear boundaries around the broader role	If MI adopts a broader framing of purpose, it will need clear limits and priorities about where it acts and where it does not	Without boundaries, a broader purpose can create strategic drift, unrealistic expectations and mandate creep from stakeholders
Clarify expectations with stakeholders	MI should clearly explain how regional and community considerations relate to its core delivery role and where its responsibilities begin and end	Stakeholders already view MI as central to the region's future. Clear articulation of purpose helps maintain trust and reduces confusion about the organisation's role

Theme Five: Capital expenditure, commercialisation and efficiency

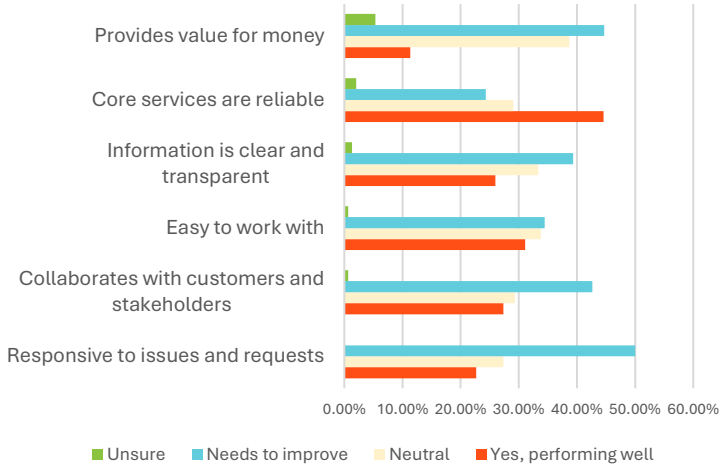
Stakeholders were clear that MI's challenge goes beyond increasing asset spending, identifying new revenue, or improving efficiency in isolation. The core issue is whether the organisation can demonstrate a credible path to sustaining an ageing and essential network under growing financial, operational and climate pressure.

Across the consultations, capital expenditure, commercialisation and efficiency were repeatedly raised as parts of the same problem: the asset base is becoming harder and more expensive to maintain, customers are under pressure and increasingly sceptical of rising costs, and MI's current revenue model is unlikely to carry the full weight of future renewal on its own. The need for change is broadly accepted. The focus has shifted to whether MI can make disciplined choices, explain them clearly, and show how they will strengthen reliability, affordability and long-term confidence in the business.

Stakeholders consistently treated capital expenditure, commercialisation and efficiency as a connected strategic challenge rather than three separate topics. MI's infrastructure is widely seen as essential regional infrastructure, but the current funding logic is increasingly under strain.

Survey results point to a clear appetite for action: 80.7% selected improving efficiency of existing services as a priority for long-term financial sustainability, 69.7% selected investing in asset renewal and reliability, and 44.8% selected diversifying revenue through new or expanded services. Only 21.4% supported maintaining the current revenue model with minimal change. At the same time, sustainability and resource efficiency was rated a transformative or major impact by 76.8% of respondents.

Figure 9: Survey summary to question "Based on your experience with or understanding of Murrumbidgee Irrigation, how well do you think it currently performs in the following areas?"



The key message is that stakeholders are advocating for change, but there are caveats. The strongest customer signals are about value for money, maintenance, efficiency, and visibility of planning and costs. Overall, 44.1% said MI does not currently provide value for money, and the highest near-term improvement priorities were efficiency and cost control (66.9%), faster and more consistent maintenance (53.1%), and greater transparency on long-term planning (41.4%). This suggests the issue is that MI needs to strengthen how it explains why a given investment matters, how it is prioritised, and how the benefit will be felt in service, resilience or affordability.

Stakeholders also emphasised the scale, age and complexity of MI's asset base is becoming harder to sustain under the current revenue model. The tension that emerged was how MI funds and prioritises asset renewal in a way that customers perceive as fair, credible and necessary.

"[We] need to attract new sources of revenue to be used in support of asset renewal and maintenance"

Across interviews and survey responses, customers focused most strongly on efficiency, affordability, maintenance and visibility of cost drivers. In the 2025 CX survey, the top improvement priority was "Investment in water asset maintenance (29%)", alongside "More information on long-term infrastructure planning (27%)".

Costs

Frustration was expressed in relation to rising costs, especially where customers believed automation and modernisation should already be reducing them. To illustrate, when asked in the survey about MI's current performance 52.5% of customers described value for money as needing improvement (while staff were mostly neutral on this topic).

MI's fixed charges (which are in line with CPI increases) and peak/off-peak pricing all arose in this context. Some comments on rising costs for customers were especially pointed, describing that "general customers have been getting ripped off". MI is in a challenging position related to customer costs, in that it has to pass on up-stream water delivery charges from Water NSW. Interviewees within the organisation were more likely to raise 'MI commercialisation and revenue diversification' as part of the longer-term answer to this issue.

Survey respondents placed strong emphasis on improving efficiency of existing services and investing in asset renewal and reliability, while maintaining the current revenue model with minimal change was the least attractive option for long-term financial sustainability. "Sustainability and resource efficiency" was also one of the strongest future shifts anticipated, with 76.8% of respondents rating it a transformative or major impact. Taken together, this suggests stakeholders are not arguing for inaction. They are signalling that MI will need a more robust funding logic, stronger cost discipline and a clearer account of how new revenue or savings will strengthen the core business.

A common view of interviewees was that business as usual may be manageable in the short term, but that "massive hurt" may emerge over the next ten to twenty years without more deliberate forward planning. Capital expenditure, commercialisation and efficiency emerged as connected issues and solutions to this tension.

Capital expenditure

Infrastructure capital expenditure emerged as both a practical and strategic concern. Customers repeatedly returned to the condition of the asset base, while staff emphasised the cost of maintaining the asset base, and the difficulty of funding renewal in a highly variable operating environment. There was broad recognition that MI's infrastructure is extensive, ageing and increasingly exposed to operational and regulatory pressure.

> *"[MI] has got to take a good hard look at their operational costs […] they've got this massive system, and the degradation of the channel banks are starting to collapse. Now over the next 10 years, they're never going to have the capital to fix the infrastructure when it starts failing"*

Stakeholders described "a lot of ageing infrastructures that will need attention" and pointed to "metering issues (customers questioning, meters failing, long repair times), increase in maintenance required as automated gates and structures age and fail." There was also concern that legacy infrastructure may create future regulatory risk, particularly where physical systems are harder to monitor, defend or modernise. Maintenance of infrastructure was consistently raised as a priority by customers. MI is currently in the process of developing an asset management plan, however this feedback points the need for longer term visibility of asset management and renewal needs.

Interviewees also described uncertainty around how capex can be planned and communicated in practice, alongside limited modelling capability and insufficient system redundancy. They also described situations where, when servers were down, staff had to return to manual field checking to understand what gates and channels were doing. This points to a broader issue than asset age alone. The challenge is also about resilience of the wider operating system, including planning capability, digital support and continuity under stress. Several interviewees suggested that future capital planning will need to work across both shorter and longer horizons, while accounting for greater variability in water availability, rising customer expectations and a hotter operating environment.

Stakeholders also highlighted the equity and governance dimensions of capex. Major cash-intensive investments appear difficult to progress where customers perceive rising costs but cannot see a clear return. The sequencing of upgrades across such a large and uneven network is likely to be heavily scrutinised. Fairness and equity were strong values across the consultation, and there was recognition that prioritisation and planning decisions will be difficult in MI's complex stakeholder environment and in the context of its shareholder/customer elected board. This suggests that capital expenditure will need to be supported by clearer investment logic, stronger communication and a more explicit explanation of how future spending improves reliability, resilience and value for money.

Customer views on capex were pragmatic rather than resistant in principle. External stakeholders were primarily concerned with efficiency, sustainability, affordability and clarity around cost drivers. Many appear to accept that infrastructure renewal is necessary, but struggle to see the return on asset renewal initiatives when service frustrations and cost pressures remain visible.

Some interviewees also framed MI's infrastructure as foundational regional infrastructure rather than simply a delivery network, with an expectation that government will continue to play a role in major capital renewal because of the scale and public value of the system.

Commercialisation

Commercialisation is increasingly being discussed in MI and among its stakeholders as part of the long-term funding answer. However, interviewees suggested MI is still clarifying what commercialisation means in practice. There is a tension between customer interest in lowering their costs directly versus investment in projects that increase efficiency and reliability lowering costs over the medium and long term.

Where MI is constrained by its current revenue base, and where there are limits to how much can be recovered from customers, then additional revenue sources may be needed to support asset renewal and or reduce pressure on fixed charges. That logic sits behind the recurring view that MI may "need to attract new sources of revenue to be used in support of asset renewal and maintenance".

Interviewees described MI's asset base as unusually diverse and, in that sense, as a potential enabler of growth beyond traditional water delivery. The opportunities raised were varied.

Table 5: Short-list of potential opportunities for commercialisation projects that emerged from stakeholder interviews and survey responses

Potential opportunity area raised in consultations	What this could involve and why it matters
Advisory and consulting services	Provide advisory services based on MI's experience managing large-scale irrigation systems. This could diversify revenue while positioning MI as a national leader in irrigation operations and infrastructure management
Data, technology and IP services	Package MI's operational data, technology expertise and system insights as services for governments, irrigation operators or industry. This could unlock value from assets MI already holds but currently uses mainly for internal operations
Digital agriculture and data platforms	Integrate water delivery data with farm-level decision tools to support irrigation scheduling, crop management and risk planning. This could strengthen customer value while improving water efficiency across the network
Renewable energy linked to infrastructure	Explore opportunities such as solar over channels, solar on MI land or energy generation linked to pumping infrastructure. This could reduce operating costs and potentially generate new revenue streams from existing assets
Data centres and digital infrastructure	Partner with data centre operators or digital infrastructure investors seeking reliable water, energy and connectivity. This could attract new economic activity to the region and diversify MI's commercial base
Network connectivity services	Leverage MI's physical network footprint to support improved regional connectivity, including satellite services such as Starlink. This could help address a known barrier to digital agriculture adoption in the MIA
Carbon farming and environmental markets	Investigate carbon farming or environmental credit opportunities associated with vegetation management, wetlands or channel reserves. This could strengthen MI's environmental positioning while potentially generating new income streams
Innovation ecosystem development	Establish partnerships between MI, irrigators, technology firms and research organisations to trial new irrigation and water technologies. This could position the MIA as a leading testbed for irrigation innovation
Agricultural technology trials	Use MI's network and customer base to host trials of new ag-tech, automation and water management systems. This could accelerate technology adoption while strengthening MI's role in the regional innovation system
Multi-peril crop insurance	Explore partnerships to develop insurance products that better manage climate and production risk for irrigators. This could improve sector resilience and support long-term viability of irrigated agriculture
Circular economy opportunities	Investigate opportunities linked to biomass, agricultural by-products or nutrient recovery associated with irrigation and food processing industries. This could align with sustainability trends and emerging market demand
Water-enabled industry growth	Support attraction of new industries such as food processing, controlled environment agriculture or advanced horticulture that depend on reliable water supply. This could expand the regional economic base that MI's infrastructure supports

MI is sitting in a strong position to create value beyond traditional water delivery. However, it became clear that these initiatives need to be pursued in a disciplined way with a clear mandate, sequencing and framework for pursuing them.

Staff suggested the case for commercialisation has not yet been fully made across the organisation, that board-level targets, guardrails and risk appetite remain unclear, and that new ideas can attract resistance before they are properly assessed and tested. They also pointed to the need for clearer cross-functional ownership, shared KPIs particularly where pricing, asset planning, customer service, sustainability and new revenue opportunities intersect. This suggests commercialisation will require more than opportunity screening. It will require explicit board licence, clearer strategic intent and stronger governance of multidisciplinary work.

There was also caution, with interviewees raising the risk that commercial diversification could generate governance complications or threaten MI's tax-exempt public authority status if pursued without discipline. They also noted that some opportunities may trigger stakeholder concern where they raise questions about fairness, water access or MI's purpose. Commercialisation is therefore unlikely to gain support if it is framed as expansion for its own sake. It will need to be framed as a means of strengthening core service delivery and reducing long-term reliance on customer charges.

Benchmarking and efficiency

The lack of benchmarking data presents a challenge, it limits MI's ability to prove that it is meeting best-practice and to communicate customer value. Multiple interviewees noted the absence of credible benchmarking against comparable irrigation entities which cover water delivery performance or cost performance. The lack of benchmarking data may mean that MI has to rely more heavily on internal baselines, engineering evidence, quantified benefit cases and post-investment measurement to demonstrate that capital expenditure improves delivery efficiency.

Efficiency was framed as the most immediate and credible response to financial pressure for both MI and its customers. Furthermore, survey respondents were clear that improving efficiency of existing services should be explored to strengthen MI's long term financial sustainability and diversify revenue. However, the term efficiency can be interpreted in multiple ways. The two biggest ways efficiency emerged was either in improving water delivery efficiency (minimising water losses during delivery) and improving MI's operational efficiency (cost of doing business). It was noted that customers are also taking initiative in improving on-farm water efficiency.

There is a tone of criticism in the survey and customer stakeholder interviews towards MI regarding efficiency and costs. It should be noted that MI and MI's customers don't have access to benchmarking data to make informed judgements about MI's efficiency or cost base. Benchmarking MI's performance against like Australian and global irrigation entities is warranted.

"1% improvement [in delivery efficiency] is a huge financial benefit to MI, which creates massive opportunities."

MI has taken action to improve efficiency of water supply, due to automation and other operational efficiencies, today approximately 13% water is lost in water delivery due to evaporation and seepage. Whereas 15 years ago, this was over 20%.

Table 6: Economic value of reducing MI water conveyance losses

Scenario	Assumption	Economic value generated
Water saved from reducing conveyance losses	MI current conveyance loss ~13% = **84.5 GL** (84,500 ML)	84,500 ML of water currently lost annually (under current assumptions / data)
Direct water market value	Water price assumption **$400/ML**	**$33.8 million per year**
Low-end agricultural value	$1,800 per ML production value (mixed cropping estimate)	**$152.1 million per year**
Central estimate	$2,500 per ML production value (typical irrigated production value)	**$211.3 million per year**
High-end estimate	$4,000 per ML production value (high-value cropping)	**$270.4 million per year**

As the Table above highlights, even modest improvements in water efficiency translate into large economic gains across the region. The direct value of water saved may be around $33.8 million annually, but once that water supports agricultural production the economic value is significantly higher, potentially $126-338 million per year depending on crop mix.

Improvements in network efficiency present real financial opportunities for MI and the region. Under the current approach, a significant share of water savings generated through improvements in network efficiency is returned to customers through what MI refers to as 'enhancements'. These are allocated in proportion to delivery entitlements (DEs) held within the MI network. Customers with greater than 250ML of DEs are eligible to receive MI enhancements from network efficiency savings. In practice, this means the benefit flows to customers who hold delivery rights, rather than to the broader pool of water market participants.

MI's FY26 budget parameters estimate MI's potential water savings pool at 96 gigalitres. The value of this pool is highly sensitive to water market prices. The FY26 estimate assumes $150/ML, which was reasonable for budgeting purposes but is materially below recent market conditions. At present, this pool is allocated across three main uses:

Table 7: Current main uses of MI water efficiency savings

Allocation	Volume	Share	Value at $150/ML	Value at $230/ML	Value at $350/ML	Value at $400/ML
Returned to customers through 'enhancements'	40 GL	~41.6%	$6.0m	$9.2m	$14.0m	$16.0m
Sold into the market	40 GL	~41.6%	$6.0m	$9.2m	$14.0m	$16.0m
Sold or used as conveyance in high delivery years	16 GL	~16.7%	$2.4m	$3.7m	$5.6m	$6.4m
Total pool value	**96 GL**	**100%**	**$14.4m**	**$22.1m**	**$33.6m**	**$38.4m**

This is a sensitive area because it cuts across pricing, fairness and governance. It also appears to be t a point at which capex, efficiency and commercialisation intersect.

There is no legal or regulatory requirement for MI to give efficiency savings back to customers, and no apparent commercial or operating benefit for MI in doing so. The inequity of this places MI's social license at risk.

"The greed and corruption that has been happening with … giving away our conveyance water"

Consultation highlighted the link between efficiency and operating costs, labour use, water losses, service responsiveness, internal systems and the extent to which MI still relies on manual intervention. This suggests that efficiency is viewed through multiple lenses, it's perceived as cost reduction but also about efficient operations and systems.

Survey feedback suggests many customers do not see MI as operating as efficiently as it could. Improving efficiency and affordability were strongly supported as both near-term and longer-term priorities, including improving the efficiency of existing services to support MI's long-term financial sustainability. Some responses pointed directly to labour efficiency, with a perception that MI may be using more staff than required in both office and field operations. One stakeholder requested that MI "review the waste in over staffing at the office". This perception also applied to on-the-ground staff. These views matter because customer perceptions of over-servicing or duplicated effort can weaken confidence that MI is controlling its cost base as tightly as possible. Note there is no benchmarking data to prove or disprove these views.

"When you have 14 workers to clean about 15 metres of channel, I am not sure how that is efficient"

Internal comments also suggest inefficiencies in workflow and issue management. Staff pointed to poor workflow management, weak performance visibility, multiple people handling the same issue, inconsistent response times and a reliance on informal escalation despite several digital systems being in place. One staff member described "too many people looking at the same issue" in maintenance, while also noting that some matters are fixed quickly and others take much longer, often requiring internal phone calls to escalate. This indicates that efficiency gains are still available through better process discipline, clearer ownership and more effective use of systems. For customers, those improvements are important not just because they should improve responsiveness, but because they reduce duplicated effort and administrative drag, helping MI contain costs and deliver better value over time.

Strategic implications for MI

Taken together, this theme points to a connected strategic challenge rather than three separate issues. MI's capital needs are real and increasing. Stakeholders do not appear to support a do-nothing pathway. But nor do they appear willing to support higher costs or broader diversification without stronger evidence of efficiency, clearer investment reasoning and more transparent communication.

The immediate implication is that MI will need a more credible long-term funding and asset renewal plan. Stakeholders broadly accept that the network is old, extensive and expensive to maintain. What is less clear is how MI will prioritise renewal, what time horizons it is working to, how future variability is being accounted for, and how investment choices will improve reliability, resilience and value for money.

The next implication is that efficiency is likely to be the most credible near-term agenda for building stakeholder confidence. There is a strong expectation that MI improve cost control, reduce avoidable friction and demonstrate more discipline in how it manages operating costs and projects. In practical terms, this means visible efficiency gains are likely to be a early win in driving support ahead of more difficult decisions about pricing, sequencing of renewal or new revenue pathways.

The final implication is that commercialisation will require clearer strategic boundaries and governance if it is to support, rather than distract from, MI's purpose. Early indications suggest there may be real value in non-customer revenue, data-enabled services, energy opportunities and partnerships. It also suggests these opportunities will remain contested unless MI is clear about what sits within its mandate, what target it is pursuing, how opportunities will be assessed, and how benefits will flow back to asset renewal, reliability and affordability. Without that clarity, commercialisation risks being seen as a distraction from the core business rather than a means of sustaining it.

Capital expenditure, commercialisation and efficiency should be addressed as interdependent parts of a single strategic response. MI will need to show that it can run the core business efficiently, explain future investment choices credibly, and pursue new revenue in ways that strengthen service delivery and long-term financial sustainability rather than widening the gap between the organisation and its stakeholders.

Table 8: Summary of strategic implications for MI

Strategic implication	What it means for MI	Why it matters
Capital expenditure, commercialisation and efficiency need to be treated as one problem	MI cannot address asset renewal, operating efficiency and new revenue as separate workstreams. These issues are now financially and strategically linked	Stakeholders do not see these as distinct issues. They see one underlying challenge: how MI sustains an ageing network without losing affordability, credibility or confidence
MI needs a more credible funding and asset renewal story	MI will need to show more clearly how renewal is prioritised, what time horizons it is planning against, and how future spending improves reliability, resilience and value for money	Stakeholders broadly accept the network is old, essential and expensive to maintain. What they do not yet accept is the logic behind how renewal decisions are being made and communicated
Efficiency is now the most credible test of management discipline	MI will be judged first on whether it can run the current business more efficiently, reduce avoidable friction, improve maintenance performance and show stronger cost control	Customers are signalling that they want change, but not on weak terms. Visible efficiency gains are likely to be the price of support for harder decisions on capex, pricing and diversification
The current revenue model is under growing strain	MI cannot assume the existing funding base will carry the full cost of future renewal, maintenance and system resilience. Pressure on customer charges is already visible	Stakeholders recognise that business as usual may hold for a while, but not indefinitely. Without a stronger funding logic, the gap between network needs and financial capacity will widen
Capex is as much a planning and operating model issue as a funding issue	MI's capex challenge is not just about raising capital. It also involves sequencing, modelling, workforce planning, system redundancy, continuity under stress and adapting to a hotter, more volatile operating environment	The consultation points to a wider resilience problem. Ageing assets, fragmented systems, manual workarounds and rising service expectations all increase the risk that asset pressures become operating failures
Investment decisions will be judged through fairness and visibility	MI will need to explain not only what it is investing in, but why, in what order, and with what expected benefit across a large and uneven network	In a shareholder and customer environment, major capex decisions will be scrutinised closely. Where customers see rising costs without a clear return, resistance is likely to harden
Commercialisation will only hold support if it is tied back to the core business	New revenue opportunities will need to be framed as a means of supporting asset renewal, reliability and affordability rather than as growth for its own sake	Stakeholders can see the logic of diversification, but support will weaken quickly if commercialisation looks like mandate drift, creates governance risk or cuts across fairness and purpose
Commercialisation needs stronger boundaries and governance	MI will need more clarity on mandate, guardrails, risk appetite, ownership and decision-making before commercial opportunities can be pursued credibly	The opportunity set may be real, but so are the risks. Without clearer governance, new ideas will remain contested internally and externally
Benchmarking is now a strategic gap	MI lacks the external performance evidence needed to show whether its cost base and delivery performance are genuinely competitive or efficient	In the absence of benchmarking, criticism about efficiency and value for money is harder to rebut. That weakens MI's ability to build confidence in both capex and pricing decisions
Water efficiency gains are financially material and strategically sensitive	Improvements in network efficiency create real value, but how that value is allocated cuts across pricing, fairness, governance and long-term investment choices	This is where capex, efficiency and commercialisation visibly intersect. The issue is not just technical. It goes directly to social licence and whether stakeholders believe the benefits are being used in the right way
Operational efficiency is being judged through lived experience, not internal effort	Customers are reading efficiency through maintenance response, labour use, service visibility, water losses and how much manual intervention still appears to be required	MI may see efficiency as an internal management issue, but customers experience it as a value for money issue. That makes operational discipline highly visible and politically sensitive

Theme Six: Customer service

Customer service did not come through as a narrow operational issue. The quality of customer relationships is becoming a defining issue for MI's future. The strongest pattern in the material is that customers appear to distinguish between MI's core service and the experience of dealing with MI. Stakeholders acknowledge MI delivers a reliable technical system, but that reliability is not always matched by the day-to-day customer experience.

Importantly, the feedback from stakeholders applies across MI, it was not isolated to Customer Services. Themes raised include maintenance, complaints management, internal coordination, workforce culture and trust – all of which apply across the business.

Customer and stakeholder feedback points to a persistent trust deficit between MI and parts of its customer base. This appears to reflect long institutional memory, legacy issues and MI's position as a monopoly provider. In that context, customer service is judged through everyday interactions, how clearly MI communicates, whether issues are followed through, and whether customers feel they are treated openly and fairly.

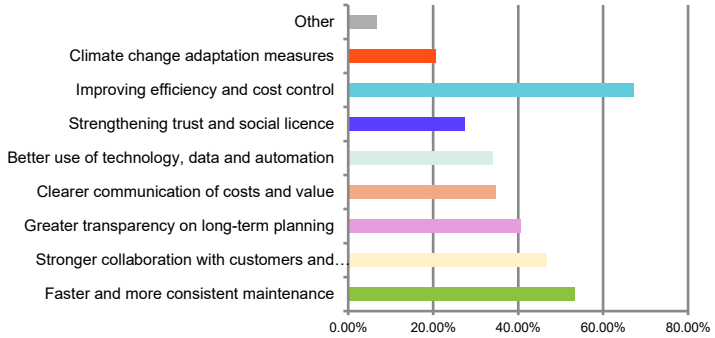
This sits within a broader social licence challenge. Water is becoming more contested and more visible. That places greater weight on transparency, responsiveness and the quality of MI's relationship with customers and the community. Many stakeholders described wanting a more collaborative relationship with MI, with stronger partnership in navigating change rather than a distant service-provider model.

Customer service emerged as a clear weakness in the current experience of MI. Stakeholders described concerns about communication, responsiveness and consistency of service. One survey respondent put it directly:

"Communication and customer service has been and certainly still is a major weak point of MI. I believe this does not often come from staff members themselves but largely from the culture of the organisation that they stand in front of."

Survey respondents said that MI's highest priorities to improve over the near term included faster and more consistent maintenance, stronger collaboration with customers and stakeholders and greater transparency on long-term planning (see **Figure 10** below). The feedback was that staff are willing to help, but that organisational culture, internal processes and service norms are producing poor outcomes at the customer interface.

Figure 10: Survey summary for 'which areas should be MI's highest priorities to improve over the near term (next few years)



Expectations are also changing. Larger and more corporatised farm businesses increasingly expect stronger transparency, faster response times and more professional service systems. At the same time, smaller irrigators often still rely on direct operational support and personal contact. This creates tension within the current service model and places pressure on MI's capacity to serve different customer groups consistently.

MI has introduced more digital tools and platforms, but the operating model remains partly shaped by legacy practices and manual intervention. Some customers continue to rely on staff to manually process requests that could be self-managed through digital channels. This sustains inconsistency, adds avoidable workload and leaves expectations unclear for both customers and staff.

This challenge is reflected in a staff member view that "in five years, we want customers to be able to self-service everything". However, this remains an informal aspiration rather than a defined target, and it has not been clearly communicated to customers or to staff.

Maintenance and follow-through

Maintenance was consistently raised as part of the customer service experience, stakeholders did not emphasise the quality of maintenance works but rather the poor follow-through. "Faster and more consistent maintenance" was selected by 53.10% of respondents as a near-term priority for MI. Open-text survey responses were direct, including "In field maintenance activities needs to improve". These responses point to frustration with delays, unresolved matters, lack of transparency on when an individual complaint will be addressed and if there is a triage or prioritisation model or policy and repeated effort by customers to pursue action themselves.

"Small customer issues can take years to resolve"

A common theme was that requests can disappear into MI without clear ownership or updates. Customers described maintenance issues as "falling through the cracks", with limited visibility of progress and little confidence that matters had been actioned or closed out.

One customer described lodging a maintenance works request through MI's formal process, with staff attending the site but provided no clear follow-up unless the matter was urgent. In their words, these requests can "get lost in the wind", leaving customers without updates on whether the issue is still recognised, when it may be addressed, or where it sits in the queue. The organisation appears to lack a single trusted workflow from issue raised → triaged → assigned → completed → verified → communicated back.

Complaints management

Complaints and issues management emerged as a related challenge for MI. Stakeholders repeatedly raised concern that issues are not clearly owned, progressed or closed out. Historical grievances were also raised during consultation, suggesting that unresolved matters continue to shape current perceptions of the organisation. Indeed, survey respondents used open text opportunities to raise issues and complaints.

A small number of respondents raised serious allegations about MI's conduct. These allegations included deception, overcharging, misuse of government funding, perceived conflict of interest associated with water trading, and broader claims of corruption and unlawful conduct. These claims were not independently verified through this process and have been raised with MI management separate to this brief. However, the presence of these allegations present a material risk for MI. With the NSW Government expanding access to independent dispute resolution for irrigation customers through Energy and Water Ombudsman NSW (EWON), complaints and dispute handling are becoming more formalised. This strengthens the case for greater transparency, accountability and robust complaint management.

The current customer service model utilises internal escalation and determination of whether a complaint has been resolved. Implementing an independent external review of customer complaints would assist building trust and closing out matters.

Internal coordination is failing customers

Stakeholder feedback suggests that weak internal coordination within MI is a direct contributor to poor customer outcomes. Interviewees described disconnects across functions, weak handovers, poor information flow between teams and silos. One survey respondent called for "much better information transfer" between engineers, engagement staff, supervisors, contractors and landholders. Another pointed to the need for "better project forward planning and keeping everyone in the loop".

This fragmentation appears to flow through to frontline service outcomes. One internal stakeholder described MI as operating with "multiple siloed items in core system that do not talk to each other", with no one holding a full end-to-end view of the process. In practice, this creates confusion for both staff and customers, slows response times, and makes it harder to resolve issues efficiently the first time. It also encourages workarounds by customers, with some reportedly ringing multiple departments until they get a response, creating duplication and inefficient resource use when more than one team responds to the same issue.

Culture and workforce

The way MI interfaces with its customers is also cultural. Survey findings show staff place materially less emphasis than customers on governance, trust and transparency, with customers rating this issue 23.4 percentage points higher than staff. This gap matters because when internal priorities are misaligned with customer expectations, service issues are more likely to be underestimated within the organisation and more sharply experienced by customers. Siloed systems, weak handovers, limited shared visibility and inconsistent accountability across MI are factors that drive customer service issues.

The issue also points to a broader workforce capability challenge. Feedback suggests that MI's future operating environment will require stronger cross-functional coordination, clearer accountability, better communication and a workforce more capable of operating in a digitally enabled, service-oriented model. The current mix of habits, systems and behaviours does not appear fully aligned to that future state.

Building trust

Figure 11: The Maister Trust Equation[10]

T	Trust	**C**	Crediility	**I**	Intimacy
		R	Reliability	**S**	Self-orientation

$$T = \frac{C + R + I}{S}$$

The Maister Trust Equation also points to the need for proactive customer engagement to build trust rather than reactive complaints management. Processes MI could consider are customer advisory committees, customer focus groups, customer complaint case studies reviewed by management and customer advisory committees, complaint metrics and trend analysis reporting, and independent review of customer complaint handling.

[10] 'Maister, D.H., Galford, R. and Green, C., 2021. The trusted advisor. Free Press.

Strategic implications for MI

Customer service is a core driver of trust, reputation and social licence. Where communication is weak, follow-through is poor and complaints remain unresolved, customer frustration can quickly become broader mistrust of the organisation.

The feedback suggests that service weaknesses are often experienced by customers as signals about culture and intent. Delays, poor visibility and inconsistent responses shape perceptions of fairness, transparency and competence. This is why issues that may appear operational inside MI can carry wider consequences outside it.

The feedback also suggests that the current service model may not be sustainable in its present form. A hybrid model built on digital tools, manual workarounds, informal staff intervention and customer 'forum shopping' is likely to become harder to maintain as customer expectations rise and operating complexity increases.

Fragmentation and inefficiency is inevitable when customers have disconnected multiple points of engagement and there is no 'single source of truth' CRM.

For MI, this points to the need for a clearer and more consistent service model, stronger ownership of customer issues from end to end, and better visibility for customers once requests or complaints are lodged. It also points to the need for stronger internal coordination and workforce capability, so that systems, processes and behaviours support a more responsive and transparent customer experience. This will require a cross-functional approach to managing MI's customer experience.

To address the perception of poor follow-through on maintenance and general responsiveness, MI will need to analyse the root causes of delays and service failure points and commit sufficient funding and operational discipline to make a meaningful improvement.

At a broader level, this theme suggests that strengthening customer service will be central to strengthening trust in MI. That will matter increasingly in an environment where water remains contested, stakeholders are more demanding, and MI's social licence depends heavily on how it engages with customers and the community.

MI's culture will need to evolve towards customer experience and arrive at a better balance with project and technical expertise.

Table 9: Summary of strategic implications for MI

Strategic implication	What it means for MI	Why it matters
Trust, transparency and service quality are increasingly linked	Customers appear to judge MI through the quality of everyday service, including communication, follow-through, openness and fairness	Where trust is weak, routine service issues can escalate into broader concerns about fairness, intent and organisational credibility
Customer service is becoming a social licence issue	Customer experience now has implications beyond operational performance, influencing how MI is viewed by customers, stakeholders and the wider community	In a more contested water environment, poor service can carry wider reputation and relationship consequences. Data sharing and increasing on farm technology integration will require high levels of trust
The current service model is under pressure	MI's existing hybrid model, combining digital tools, manual workarounds and high-touch support, may become harder to sustain as expectations rise and operating complexity increases	An unclear or inconsistent model can increase inefficiency, create uneven service outcomes and make it harder to meet future expectations
Follow-through, visibility and issue resolution need to improve	Customers expect maintenance requests, service issues and complaints to be clearly owned, tracked and closed out, with better visibility of progress	Weak follow-through increases frustration, drives repeat contact and reinforces a perception that MI is difficult to deal with when problems arise
Internal coordination is shaping external experience	Fragmented handovers, siloed teams and poor information flow within MI appear to be driving delays, inconsistent advice and poor customer experience	Customers experience internal fragmentation as slow, confusing and unreliable service. This reduces confidence and increases avoidable inefficiency
Workforce capability and culture will need to evolve	Improving customer service is likely to require stronger cross-functional coordination, clearer accountability, better communication and a more service-oriented culture	Service improvement is unlikely to come from system changes alone. It will depend on whether behaviours, capabilities and internal norms support a more consistent customer experience

5. Consolidated recommendations

The insights in this brief point to a set of interconnected challenges rather than isolated issues. Climate pressure, structural change in farm businesses, digital transformation, asset renewal and customer trust are all interacting within the same system.

These dynamics suggest MI's future effectiveness will depend less on any single initiative and more on whether the organisation can strengthen the foundations of its operating model while adapting to a more volatile environment.

The recommendations below are therefore structured as a coherent set of priorities rather than a list of individual actions.

Recommendation 1: Plan and operate the irrigation system for a hotter and more volatile climate

MI's capital planning and asset renewal program should assume a materially hotter climate and more extreme weather events, with planning based on temperature increases of around 3.0°C. The existing irrigation network was largely designed for historical conditions. Future investment will need to prioritise resilience and reliability under stress, including the capacity to manage both prolonged heat and more volatile seasonal conditions.

Climate and emissions pressures are also moving steadily through agricultural supply chains, banking and export markets. These pressures are already reaching irrigated agriculture and will intensify over the next decade. MI should consider where it can play a practical enabling role for customers navigating these expectations while remaining consistent with its core responsibilities.

At the same time, MI should review whether its current emissions pathway remains aligned with the pace of change in supply chains, finance and regulation. Climate adaptation and ESG expectations are increasingly becoming baseline operating requirements for infrastructure organisations. Early positioning will help ensure MI remains credible with customers, regulators and financiers.

Several stakeholders also identified opportunities that could strengthen both regional resilience and MI's social licence if pursued carefully and in partnership with industry. These opportunities should be explored selectively where they reinforce the long-term viability of the irrigation system and regional economy.

Recommendation 2: Adapt MI's operating model to a changing structure of irrigated agriculture

The structure of irrigated agriculture in the region is changing. Farm consolidation is likely to continue, meaning MI's customer base may become smaller in number but larger in scale.

Strategic planning, pricing discussions and engagement approaches should reflect a future where fewer enterprises account for a larger share of water demand and regional production.
A single engagement model is unlikely to remain effective in this environment. MI should develop a clearer approach for working with different customer segments, recognising that large enterprises, mid-scale farms and smaller irrigators operate under different conditions and expectations.

Farm aggregation and property turnover will also continue. MI should strengthen visibility of customer relationships, landholdings and service interactions through a single organisational system, so ownership changes, operational issues and emerging trends remain visible across the organisation.

As the customer base becomes more specialised and technologically capable, MI's workforce capability will also need to evolve. Larger farm enterprises increasingly operate with managers, advisers and technical specialists. MI staff will need stronger capability in digital systems, data interpretation and commercial engagement in order to work effectively with this changing customer profile.

MI also holds significant operational data on water delivery and ordering patterns. Strengthening analytics and sharing relevant operational insights with customers could improve demand forecasting, irrigation planning and overall system efficiency.
As farms adopt more automation and precision irrigation technology, MI should also work with customers to improve practical integration between on-farm systems and the irrigation network.

Recommendation 3: Strengthen MI's digital, data and automation foundations

Digital systems and data are increasingly central to irrigation operations, but the consultation suggests MI has not yet fully treated these capabilities as strategic assets.

MI should undertake a structured review of its data assets and governance arrangements to identify opportunities to improve operational decision-making, customer services and long-term planning. Future partnerships or commercial opportunities may emerge from this work, but only once clear governance, privacy and farmer consent frameworks are established.

The technologies required to connect irrigation infrastructure with on-farm systems largely already exist. The constraint is less technical capability and more the trust and governance arrangements that allow data to be shared safely. MI should therefore prioritise a small number of practical integrations with widely used farm technologies rather than pursuing broad system connectivity.

Water data in the basin is commercially sensitive. Before expanding interoperability or data aggregation, MI will need to establish clear principles around data ownership, consent and use. Strong customer and community engagement will be essential if growers are to participate in future digital systems.

MI has invested heavily in automation across the irrigation network, but the system still operates in a hybrid environment where manual intervention remains common. The immediate opportunity is to extract more value from existing automation by reducing manual processes and clarifying operational standards, while continuing to progressively modernise the network as infrastructure ages and customer expectations evolve.

Workforce capability will need to develop alongside this investment. As systems become more data-driven, staff capability in digital operations, data interpretation and AI-enabled decision support will become increasingly important.

Finally, as irrigation infrastructure becomes more automated and connected, cyber risk and operational resilience also increase. MI's digital systems should therefore be treated as critical infrastructure, with strong cyber security capability, system redundancy and human-in-the-loop operational controls to maintain resilience during system failure or external disruption.

Recommendation 4: Clarify MI's purpose and strategic role

As the operating environment around irrigation becomes more complex, MI will benefit from a purpose that allows the Board and management to respond to emerging challenges while maintaining a clear operational focus.

One option is to define MI's purpose in two layers. The first layer reflects MI's core operational role: delivering water reliably, efficiently and at a reasonable cost for customers. The second layer recognises MI's system role in supporting the long-term viability of the irrigation system and regional economy where this directly connects to MI's infrastructure, operations or customers.

This structure allows MI to remain disciplined about its core responsibilities while retaining enough flexibility to respond to wider structural change affecting the irrigation system.

Recommendation 5: Strengthen the long-term funding and investment framework

Many of the issues raised during consultation ultimately connect to the long-term sustainability of MI's infrastructure network.

MI should develop a clearer long-horizon framework linking asset renewal, operational efficiency and commercial opportunities. This includes establishing credible benchmarking of delivery performance, operating efficiency and cost structures against comparable irrigation operators where possible.

A long-term asset renewal and resilience plan should integrate infrastructure condition, climate risk, system redundancy and future demand patterns across the network. Automation and digital capability should be pursued where they demonstrably improve reliability, reduce operating cost and strengthen operational continuity.

Water efficiency gains represent one of the few areas where MI can generate material financial value. MI should review how these gains are currently allocated and prioritise their use for asset renewal, reliability improvements and carefully targeted commercial initiatives that strengthen the long-term sustainability of the network.

Greater transparency will also be important. MI should provide clearer visibility to customers and staff on its capital investment program, including how projects are prioritised, what benefits they are expected to deliver and over what timeframe.

Moving from a project-by-project approach to a network-wide investment logic will help MI make more defensible decisions about sequencing upgrades, managing stranded asset risk and aligning infrastructure investment with the future structure of irrigated agriculture.

Recommendation 6: Strengthen customer trust through clearer service systems and engagement

Customer service issues are increasingly interpreted not only as operational problems but as indicators of organisational responsiveness and fairness.

MI should therefore define and communicate a clear customer service model that sets expectations for both customers and staff. This should include the balance between digital self-service, staff support and escalation pathways.

A single customer relationship management system should track all customer interactions, maintenance requests and complaints from issue raised through to closure. This would improve visibility, ownership and follow-through.

MI should also introduce a transparent maintenance prioritisation framework with clear triage processes, expected response timeframes and regular updates to customers.

Complaints management should be formalised with clear ownership, defined timeframes and an independent escalation pathway for unresolved or serious matters. Structured customer engagement mechanisms, such as advisory groups and service performance reporting, would also help shift the organisation from reactive complaints management to more proactive engagement.

At the same time, MI will need to evolve its internal culture toward a stronger focus on customer experience while maintaining the technical capability required to operate complex irrigation infrastructure. Strengthening coordination, accountability and workforce capability will help ensure systems and behaviours support a consistent customer experience.

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