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RDA MID NORTH COAST

National Water Reform 2026

Submission to the Productivity Commission

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Executive summary

Current water service arrangements are disproportionately loading financial, operational and regulatory burden onto local water utilities (LWUs) on the NSW Mid North Coast, Norfolk Island and Lord Howe Island. Without reform, these settings will constrain regional development, erode service reliability and increase long-term risk to communities and the environment.

RDA Mid North Coast's footprint includes six NSW councils acting as LWUs, one federal territory (Norfolk Island) and one unincorporated state territory (Lord Howe Island). Every one of these providers is small by national standards, serves a geographically dispersed or isolated population, and is attempting to deliver safe and reliable water services under a pricing and funding framework designed for scale.

The consequences are already visible:

- Port Macquarie-Hastings Council is the most exposed council-operated LWU in our region. The Bonny Hills Wastewater Treatment Plant is already operating beyond its 12,000 EP design capacity (approximately 17,818 equivalent tenements), the Port Macquarie plant is at approximately 72% utilisation, and Council's Development Servicing Plan ties new development approvals to available treatment and network capacity (Port Macquarie-Hastings Council [PMHC] 2025a). Housing release in State-designated growth corridors is materially constrained pending the completion of the Thrumster Wastewater Scheme, with commissioning targeted for 2027/28 (PMHC 2024a). Two essential capital programs — Thrumster (total scheme envelope ~\$160M) and Cowarra Water Supply Scheme (total scheme envelope ~\$190M, of which the Cowarra Water Treatment Plant component alone is ~\$152M) — can no longer be delivered on scope and schedule at the envelopes Council originally planned. Construction cost escalation (~33% rise in the NSW non-residential building index to December 2024) has outrun the reserves, borrowings and rate pathway available to a single regional council (PMHC 2025b, 2025c). Commonwealth and/or State co-funding at the order of the values quoted is now required to proceed. Water infrastructure failure has, in practice, become a housing supply failure.
- On 24 April 2026 the NSW Government announced a \$12.3 million concessional loan package under the Low Cost Loans Initiative (LCLI), including a \$7 million repayable concessional loan toward the Cowarra Water Treatment Plant, said to unlock over 5,300 new homes (NSW Government 2026; Port News 2026). That announcement confirms the principle that housing-enabling water infrastructure should be tied to dwelling yield, but the instrument (a repayable concessional loan at approximately 4.6% of the Cowarra WTP component value) is not commensurate with the scale of the forward obligation, which on a total-scheme-envelope basis is now approximately \$389M across Thrumster, Cowarra and the Kew–Kendall Wastewater Diversion.
- No major new water storage has been delivered on the NSW Mid North Coast since the small Bowraville Off-River Storage opened in 2015, and no major NSW state-built dam since Split Rock (1987) — against sustained population growth and a regional water strategy that still has not translated into built capacity (Department of Climate Change, Energy, the Environment and Water [DCCEEW] NSW 2022).
- Norfolk Island recorded its driest year on record in 2024 (653 mm against a 1,129 mm prior year), multiple bores had failed by mid-January 2025, and the community's desalination plant is undersized and reactive rather than a secure base supply (Norfolk Island Regional Council [NIRC] 2025).

- Lord Howe Island has no reticulated municipal supply. The community depends on approximately 1,030 kL of rainwater tank storage against a 31% rainfall decline over the past 50 years and two of four groundwater catchments already contaminated (Lord Howe Island Board [LHIB] 2025).
- Across the region, river systems and coastal lagoons are receiving diffuse pollutant loads from intensive horticulture and dairy, with documented pesticide exceedances and fish kills on the Coffs coast (Coffs Harbour City Council 2022; NSW Environment Protection Authority [EPA] 2025). Wastewater is still being treated as a liability rather than a resource. On Norfolk Island, nutrient loading from on-site disposal is damaging one of the most geographically isolated and endangered reef systems globally.

This submission focuses on Part B of the terms of reference — secure, resilient and sustainable services — and responds in part to Part A where our region illustrates progress or regression against the 2024 National Water Initiative (NWI) priorities (Productivity Commission [PC] 2024).

Eight recommendations are set out at the end of this submission. In summary, they call for:

1. A shift from capital-grant co-funding to lifecycle needs-based funding for regional LWUs.
2. Explicit Productivity Commission support for expanded, transparent Community Service Obligations (CSOs) in NSW, calibrated for isolation and scale.
3. Recognition of Norfolk Island and Lord Howe Island as a distinct “isolated territories” category within national water policy, with dedicated Commonwealth resilience funding.
4. Structural reform of NSW economic regulation (IPART) settings for small LWUs so compliance cost is proportionate to risk and scale.
5. National standards and funding for wastewater recycling and circular water use, including indirect potable reuse pathways.
6. A ring-fenced regional water workforce strategy, including structured expertise-sharing between metropolitan utilities and regional LWUs.
7. Strengthened monitoring and enforceable controls on extractive use and diffuse-source pollution in unregulated systems, backed by compliance-officer resourcing.
8. Integration of regional water and wastewater enabling infrastructure into Commonwealth housing supply funding programs, so that treatment and network capacity constraints in State-designated growth corridors are eligible for needs-based, grant-based co-funding (not repayable loans alone) without competitive grant-round delay..

1. About RDA Mid North Coast

Regional Development Australia Mid North Coast is a not-for-profit, federally funded regional development body. Our mandate is to drive sustainable economic, social and environmental development across the NSW Mid North Coast, Norfolk Island and Lord Howe Island. We work with three levels of government, industry, Aboriginal organisations and community to identify priorities, broker investment and unblock constraints.

Water is not a peripheral issue in our region. It is the binding constraint on housing supply in Port Macquarie-Hastings, on tourism viability on Norfolk and Lord Howe, on the \$1B+ horticulture and dairy economies of the Macleay, Hastings, Nambucca and Bellinger valleys, and on the cultural and ecological integrity of coastal catchments and reef systems that define the region.

This submission draws on council operational plans, IPART determinations, federal infrastructure assessments, the Norfolk Island Water Resource Assessment, the Lord Howe Island Drinking Water Quality Assurance Programme, Commonwealth Scientific and Industrial Research Organisation (CSIRO) technical work, peer-reviewed research and direct stakeholder engagement across our footprint.

2. Regional context

2.1 The Mid North Coast in numbers

The NSW Mid North Coast services approximately 350,000 permanent residents across six LWUs, swelling substantially in peak tourism periods. Every LWU in our region is a local government unit — a pattern that is consistent across coastal NSW outside the major metropolitan service areas, but not uniform across the state.

Population growth has outpaced water infrastructure investment. In Port Macquarie-Hastings, the consequence is already operational. The Bonny Hills Wastewater Treatment Plant is exceeding its 12,000 equivalent person (EP) design capacity (current load approximately 17,818 equivalent tenements), the Port Macquarie plant is at approximately 72% utilisation and depends on partial load diversion to the new Thrumster plant (targeted 2027/28) for future headroom, and Council's Development Servicing Plan for Water Supply and Sewerage ties new development approvals to available treatment and network capacity (PMHC 2025a, 2025d). Housing release in State-designated growth corridors is materially constrained pending the completion of the Thrumster Wastewater Scheme, targeted for commissioning in 2027/28 (PMHC 2024a). Council carries the full delivery risk.

2.2 Norfolk Island

Norfolk Island (population ~2,100) sits approximately 1,400 km east of the Australian mainland. It has no reticulated potable supply. Households rely on roof catchment into private tanks, topped up in dry conditions by water carters drawing from a limited number of bores.

Under the Norfolk Island Regional Council Drought Plan, a reverse-osmosis desalination plant activates at the "High" alert level. This was triggered in January 2025 after 2024 became the driest year on record at 653 mm (against a prior-year 1,129 mm). By mid-January 2025 multiple bores had failed and water carters could not meet domestic demand (NIRC 2025).

The desalination plant's operational storage was reported at approximately 227,000 litres — adequate as an emergency measure but not scaled as a reliable base supply for a community that now sits in a climatological envelope where such droughts are becoming more frequent, not less (NIRC 2025; Commonwealth of Australia 2023).

Wastewater on Norfolk is a parallel crisis. Infiltration of nutrients and pathogens into the lagoon and reef is documented and is contributing to the decline of the Norfolk Island Marine Park reef complex — one of the most geographically isolated and endangered reef systems globally (Commonwealth of Australia 2023).

2.3 Lord Howe Island

Lord Howe Island (population ~450 permanent, ~150-250 staff, plus a tourism cap of ~400 visitors) is a World Heritage site managed by the Lord Howe Island Board (LHIB), an NSW state entity. LHIB manages approximately 1,030 kL of storage across potable, non-potable, operational and residential tanks, with high-risk sites treated by UV disinfection, multi-stage filtration and optional chlorination (LHIB 2025).

The Island has no desalination capacity and no reticulated central supply. Private tanks are the dominant household source. Bore water is used as a non-potable supplement; two of four groundwater catchments are already contaminated (LHIB 2025).

Climate projections for the island are unambiguous. Rainfall has declined by approximately 31% over the past 50 years, and 2018 was the driest year in 132 years of record (Bureau of Meteorology [BoM] 2024; LHIB 2025). More frequent and longer dry spells are projected through 2030–2050, alongside reduced cloud-forest moisture recharge (Commonwealth Scientific and Industrial Research Organisation [CSIRO] 2023). Concern with the expected Super El Nino event predicted is being expressed by Island communities.

2.4 A structural commonality

Every provider in our footprint — six NSW council LWUs, NIRC and LHIB — faces the same structural problem: they are asked to deliver water services at a standard designed around metropolitan utilities, using a pricing and regulatory framework designed around metropolitan utilities, to populations small enough that no conceivable efficient tariff structure can fund the asset base.

This is not a failure of the providers. It is a design flaw in the national framework.

Part A — Progress since the 2024 NWI assessment

3. NSW progress against 2024 priorities — regional perspective

The Commission's 2024 key priorities for NSW included completing Murray-Darling water resource plan accreditation, floodplain harvesting licence rollouts, AS4747 metering, and numeric extraction limits for unregulated river systems (PC 2024). These priorities are important but disproportionately focus on the inland Basin.

From our regional perspective, the most material 2024 findings for the Mid North Coast are:

- **Finding 6.2 (governance decision-making on major water infrastructure is not fully NWI-compliant)** (PC 2024). Funding decisions under the National Water Grid Fund and NSW co-funding streams are not transparently subjected to independent cost-benefit scrutiny, and where a regional LWU has a project with a benefit-cost ratio below 1 but a clear public interest case (typically driven by safety, health or the basic provision of service to remote communities), there is no transparent framework through which such a project can be funded. This is a critical gap for our region.
- **Finding 9.1 (some regional and remote areas still do not have access to safe drinking water)** (PC 2024). This is acutely true for Norfolk Island in dry years and increasingly marginal for Lord Howe Island. It is also true in parts of the Macleay catchment during drought and flood cycles, where Kempsey Shire Council's supply security is known to be fragile (Kempsey Shire Council 2024).
- **Finding 9.2 (inconsistency in publication of drinking water quality data)** (PC 2024). There is no centralised, comparable reporting platform for the drinking water quality performance of NSW council LWUs or the two territories in our footprint. Communities cannot benchmark their service against peers, and investment cases cannot be built on nationally consistent data.

Barriers and emerging risks in our region over the next three years

- Deferred renewal on ageing assets in every LWU, with intergenerational equity implications.
- Compounding climate pressure: both drought frequency (acute for Norfolk Island, Lord Howe Island, and the Macleay and Hastings catchments in summer) and flood frequency, with repeated inundation of treatment plants on the Mid North Coast between 2021 and 2024 (NSW Reconstruction Authority 2023).
- Diffuse-source nutrient and pathogen pollution from intensive horticulture and dairy into unregulated rivers, with limited monitoring or enforceable controls (Coffs Harbour City Council 2022; NSW EPA 2025).
- Workforce attrition: regional LWUs cannot compete with metropolitan and private-sector salaries for water engineers, operators and treatment technicians.

Part B — Secure, resilient and sustainable water services

4. Pricing and economic regulation (Theme 1)

4.1 IPART settings are not proportionate for small LWUs

The Independent Pricing and Regulatory Tribunal's (IPART) pricing framework emphasises cost-reflective pricing and long-term financial sustainability (IPART 2023). These are the right objectives. The problem is application.

For a council LWU of the scale of Nambucca Valley, Bellingen or (historically) Kempsey, the compliance burden of an IPART determination — engagement, modelling, regulatory submissions, documentation — is disproportionate to the regulatory risk being managed. Small LWUs have neither the scale nor the in-house expertise to carry this burden efficiently, and external consultants add cost without improving outcomes.

At the same time, there is a fundamental tension between cost-reflective pricing and affordability in small regional systems. The ratepayer base is small, the asset base is large relative to that ratepayer base, and the capacity of vulnerable households to absorb price rises is low. Standard economic regulatory logic breaks down at this scale.

4.2 Funding follows capital, not lifecycle

Federal and state funding for water infrastructure is concentrated on capital delivery. Operations, maintenance, asset renewal and technology upgrade — which over a 50-year asset life account for substantially more than the initial capital cost — are left to the LWU.

This distorts investment decisions. LWUs are pushed to commit to essential capital projects on the assumption of grant co-funding that in practice has not materialised, and operational and renewal cost is then carried indefinitely on a ratepayer base that cannot sustain it. The Port Macquarie-Hastings Thrumster Wastewater Scheme (total scheme envelope ~\$160M) and Cowarra Water Supply Scheme (total scheme envelope ~\$190M, of which the Cowarra Water Treatment Plant component alone is ~\$152M) illustrate the consequence: escalation has pushed both beyond the envelope Council can deliver on scope and schedule from its own reserves, borrowings and rate pathway (PMHC 2025a, 2025b, 2025c; NSW Government 2026). The NSW Government's 24 April 2026 announcement of a \$7M repayable concessional loan toward the Cowarra WTP under the Low Cost Loans Initiative is welcome as a signal, but at approximately 4.6% of the Cowarra WTP component value and 100% repayable, it does not address the scale of the funding gap. Without external co-funding at the values now required, delivery will slip, scope will be cut, or ratepayers will carry prices beyond any reasonable definition of affordability.

4.3 The inequity between metropolitan and regional utilities

Metropolitan utilities in Sydney, the Hunter, Canberra, Melbourne and Brisbane operate at a scale where cost-reflective pricing and affordability are reconcilable objectives. While NSEW has a number of LWUs which extend across a number of local government areas, most regional LWUs cannot make objectives reconcilable through pricing alone. This is an equity problem masquerading as a regulatory consistency problem.

Expanded and transparent Community Service Obligations are part of the solution. However, the current CSO architecture in NSW is neither sufficient in scale nor consistent in application, and is not well understood or regularly applied by IPART, by NSW Treasury, or by LWUs themselves.

5. Governance, accountability and coordination (Theme 2)

5.1 Fragmentation across regulators

Urban water regulation in NSW is distributed across planning, environmental, public health, economic and cross-border agencies. A single project at Port Macquarie-Hastings, Kempsey or MidCoast can require engagement with DCCEEW NSW (water licensing and planning), the NSW EPA (environmental compliance), NSW Health (drinking water quality), the NSW Department of Planning, Housing and Infrastructure (development consent), IPART (pricing) and the Commonwealth (where funded under the National Water Grid Fund or Housing Support Program).

This fragmentation produces duplication, unclear accountability, approval delays and — most seriously — gaps where responsibility for a risk (for example, diffuse-source nutrient pollution from intensive agriculture into a drinking water catchment) sits nowhere in practice, even if it sits somewhere in policy.

5.2 Drought planning and water restrictions are inconsistent

Drought response frameworks across the six NSW LWUs in our region are not harmonised. Restriction triggers, permitted uses, communication and enforcement differ by council. For visitors, for itinerant workers, and for shared catchments (for example, the Macleay, which is shared between Kempsey Shire Council and Armidale Regional Council), this creates confusion and undermines compliance.

Norfolk Island’s escalating drought response (activated January 2025) and Lord Howe Island’s rainwater tank best-practice guidance during dry conditions each operate under their own frameworks, with no national benchmark or coordination mechanism (NIRC 2025; LHIB 2025).

5.3 The “no forced amalgamation” constraint

The NSW Government’s policy of no forced amalgamation of LWUs removes one of the simpler structural reform options available to other jurisdictions. We do not advocate forced amalgamation. However, we note that in the absence of structural change, NSW will need to invest more aggressively in:

- shared services models between neighbouring LWUs;
- structured expertise-sharing between larger utilities (Hunter Water, Sydney Water) and regional LWUs;
- Commonwealth/state-level technical support functions for small LWUs (for example, compliance, digital, asset management and regulatory engagement).

Without this, scale efficiencies will continue to be foregone by policy choice.

6. Regional, remote and equity considerations (Theme 3)

6.1 The Port Macquarie-Hastings case

Port Macquarie-Hastings Council is currently the most exposed LWU in our region. The practical consequences of under-invested water and wastewater infrastructure are already visible in the planning system:

- the **Bonny Hills Wastewater Treatment Plant** is operating in excess of its 12,000 EP design capacity (approximately 17,818 equivalent tenements), with no funded upgrade program (PMHC 2025d);
- the **Port Macquarie Wastewater Treatment Plant** sits at approximately 72% utilisation and depends on partial load diversion to the new Thrumster plant (targeted commissioning 2027/28) for future headroom (PMHC 2025d; PMHC 2024a);
- the **southern catchment wastewater system** serving Kew, Kendall, Laurieton and surrounding communities is not fit for purpose, with a \$39.2M diversion to Camden Haven Wastewater Treatment Plant underway — this triggered a choice in December 2025 between a \$17M upgrade and a \$92M greenfield plant, with Council opting for the upgrade on affordability grounds (News of the Area 2025);
- Council's **Development Servicing Plan for Water Supply and Sewerage** governs release rates for new development based on available infrastructure capacity, which means new housing approvals in multiple catchments are being constrained in practice by the absence of treatment plant headroom (PMHC 2025d); and
- Council is on record as having declined to impose a formal moratorium on rezoning in August 2022, preferring instead to pause final Local Environmental Plan amendments and phase development to available capacity (Port News 2022).

Two major capital programs — the **Thrumster Wastewater Scheme** and the **Cowarra Water Supply Scheme** — are essential to unlock growth, protect public health and restore environmental compliance. Without them, housing supply in State-designated growth corridors cannot be delivered on the timeline the NSW Government is relying on.

These projects are not “self-funded by choice”. Council has been forced to carry them alone in the absence of material Commonwealth or State co-funding, and the construction market has moved against them. The current project envelopes can no longer be delivered at the amounts Council originally budgeted, and external funding of the order of the values quoted is now required for delivery to proceed on scope and on schedule.

Reconciliation of project figures. PMHC financial data for these schemes are drawn from two distinct but complementary bases, and both are used in this submission. The total scheme envelopes represent the full delivered cost of each program and are ~\$160M for Thrumster, ~\$190M for Cowarra Water Supply Scheme (of which the Cowarra Water Treatment Plant component alone is ~\$152M per the NSW Government's 24 April 2026 LCLI announcement), and ~\$39.2M for the Kew–Kendall Wastewater Diversion (NSW Government 2026; Port News 2026). The LTFP capital-peak values represent the peak-year capital draws within Council's 10-year Long Term Financial Plan horizon and are ~\$134M for Thrumster (peak 2027/28) and ~\$165M for Cowarra (peak 2028/29) (PMHC 2025a). Total scheme envelopes exceed LTFP capital-peak values because they include prior-year expenditure, escalation and post-horizon components. Both are valid; they measure different things.

The scale of the cost-escalation pressure, drawn from Council's own Long Term Financial Plan 2026–2036 and Resourcing Strategy 2025–2035, is as follows (PMHC 2025a, 2025b, 2025c):

- The NSW non-residential building construction cost index has risen approximately 33% to December 2024; the road and bridge index approximately 25%. Input cost pressures on materials (3–8%), labour

(3.5–8%) and utilities (~4%) are sustained, alongside acute contractor shortages in the water and sewer sector.

- LTFP capital-peak values assessed in Council planning sit at approximately \$134M for Thrumster (multi-year capital peak 2027/28) and approximately \$165M for Cowarra (peak 2028/29), with capital expenditure peaks concentrated in 2026–2029. Total scheme envelopes are higher: ~\$160M (Thrumster) and ~\$190M (Cowarra, incl. ~\$152M WTP component).
- Water Fund reserves are projected to draw down from approximately **\$160.6M to a floor of approximately \$20.6M**, and Sewer Fund reserves to a floor of approximately **\$20M**, as Thrumster and Cowarra are delivered.
- Approximately **\$180M in additional borrowings** is required over the period.
- Stepped utility price increases of **7–5% for water and 9–5% for sewer** are proposed to support the program.
- The Sewer Fund is projected to run at an operating deficit of approximately **–11.46% by 2029/30** post-Thrumster; debt service on the consolidated program is projected to rise to approximately **8% of revenue** by the late 2020s.
- Council’s broader forward sewer capital program totals approximately **\$393M across 2026–2036**, supporting projected growth of ~16,000 additional dwellings by 2036 (PMHC 2025c).

The NSW Government's announcement of a \$12.3M LCLI package, including a \$7M repayable concessional loan toward the Cowarra WTP component — said to unlock over 5,300 new homes — is a welcome recognition that housing-enabling water infrastructure warrants dedicated support (NSW Government 2026; Port News 2026). However, the scale and the instrument are not commensurate with the challenge. A \$7M concessional loan represents approximately 4.6% of the \$152M Cowarra WTP component and is fully repayable. It does not close the funding gap and it does not reach Thrumster or Kew–Kendall at all. It reinforces, rather than resolves, the case for a grant-based, dwelling-indexed Commonwealth housing-enabling water infrastructure stream at the scale set out in Recommendation 8.

The logic of the current funding framework forces three mutually unattractive choices onto Port Macquarie-Hastings:

1. Absorb through pricing and rates: Continue to pass cost escalation to ratepayers through larger stepped price rises than the 7–5% water / 9–5% sewer pathway already proposed. This is regressive, erodes affordability in a regional community with a lower median income base than metropolitan Sydney, and undermines the NSW Government’s stated housing affordability objective.
2. Defer: Push elements of the capital program beyond the 10-year planning horizon. This defeats the State Government’s own growth targets in Thrumster, Sancrox and the southern catchment, and leaves the existing Port Macquarie Wastewater Treatment Plant operating beyond its design envelope.
3. Secure material co-funding: Obtain Commonwealth and/or State co-funding at the values needed to deliver the projects on scope and schedule. There is currently no dedicated capital pathway of the scale required; the 24 April 2026 LCLI announcement confirms the principle but not the scale.

A third related project, the Kew–Kendall Wastewater Diversion to Camden Haven Wastewater Treatment Plant (~\$39.2M), is partially supported by the NSW Accelerated Infrastructure Fund, with the balance carried on Council loans (PMHC 2025a). This is the closest current example of the grant-based co-funding model that would need to be generalised and scaled to deliver Thrumster and Cowarra.

Port Macquarie-Hastings Council serves approximately 90,000 permanent residents. On a total-scheme-envelope basis, the combined forward obligation — roughly \$389M across Thrumster (\$190M) and Kew–Kendall (~\$39.2M) — cannot be carried by a single regional council on reserves, borrowings and rate increases

alone without foregoing the growth, the housing supply and the service reliability that all three tiers of government are relying on that growth to deliver.

This is not a PMHC-specific request. It is the representative case for the structural funding reform this submission recommends. If the Commission is minded to understand in one example why the current framework is failing regional LWUs, this is it.

6.2 No major new surface water storage in the region since 1987

The last major NSW state-built dam was Split Rock Dam (Tamworth) in 1987. On the Mid North Coast, the only substantial new storage delivered in living memory is the Bowraville Off-River Storage (Nambucca Valley), commissioned in 2015 at approximately \$54M. This is an off-river augmentation rather than a significant new bulk storage (Nambucca Valley Council 2016).

Regional water strategy documents — including the North Coast Regional Water Strategy — have identified storage and resilience options, but these have not translated into built capacity (DCCEEWSW 2022). Meanwhile, population has risen, horticulture has intensified, and climate variability has increased.

This is not a call for indiscriminate new dam construction. It is a call for honest reconciliation of regional water strategies with actual investment pipelines. Either the regional water strategies commit and are funded, or they are acknowledged as aspirational documents.

6.3 Norfolk Island — water security is a Commonwealth responsibility

Norfolk Island is an Australian external territory. Commonwealth responsibility for its infrastructure is direct and, in practice, unavoidable.

The 2024–2025 drought exposed the inadequacy of current arrangements (NIRC 2025):

- reliance on private roof catchment for baseline household supply;
- a small number of working bores drawn down by water carters;
- a desalination plant sized for acute-escalation support, not as a reliable base supply;
- no potable reticulation;
- wastewater arrangements that are, materially, on-site septic with limited treatment, allowing nutrient and pathogen migration into the lagoon and reef.

The Norfolk Island Water Resource Assessment commissioned by the Commonwealth documents the biophysical options available (Commonwealth of Australia 2023). Implementation has lagged the analysis.

Priority investments, in order:

1. Scaled-up desalination capacity sized as a base supply, not an emergency fallback.
2. A community-scale wastewater collection and treatment system, with purified recycled water for irrigation of community agriculture, gardens and recreational reserves.
3. Additional bulk storage (community-scale tanks) as a buffer against a repeat 2024 climatological envelope.
4. Active nutrient-load management in the catchment draining to Emily Bay, Slaughter Bay and the reef.

6.4 Lord Howe Island — the most structurally exposed community in the RDA footprint

Lord Howe Island has no reticulated supply, no desalination, a measurable and sustained rainfall decline, and limited groundwater backup (two of four groundwater catchments already contaminated) (LHIB 2025; CSIRO 2023).

The LHIB Drinking Water Quality Assurance Programme (V3.1, 2025) is a technically competent document operating within tight physical and institutional constraints (LHIB 2025). It does not, and cannot, solve the underlying water resilience challenge.

Priority investments:

1. A strategic Commonwealth-state funded resilience program for rainwater storage augmentation, first-flush and filtration upgrades at both public and private sites.
2. Investigation and, if feasible, delivery of a small community-scale desalination capability as drought insurance.
3. Remediation of contaminated groundwater catchments and ongoing groundwater protection measures.
4. An EIS-supported pathway to climate-adaptive water planning integrated with the LHIB's biodiversity and cloud-forest protection strategy (CSIRO 2023).

6.5 Service equity

The implications of lower service standards in regional and remote communities are not abstract. For Norfolk Island and Lord Howe Island they mean the community is one unusually dry year away from health and economic crisis. For Mid North Coast councils they mean housing development is constrained, visitor economies are at intermittent risk, and ecosystem health (including reef and river systems) is actively deteriorating.

7. Wastewater as a resource

The current framework treats wastewater as a liability. Treated effluent is discharged, infrastructure is sized only for safe disposal, and reuse in NSW is constrained by fragmented approvals across the NSW EPA, NSW Health, IPART and DCCEEW NSW.

On Norfolk Island, the case for utilisation of appropriately treated wastewater is overwhelming: freshwater supply is constrained, agricultural and irrigation demand is real, and the current disposal pathway is damaging a reef system of international significance (Commonwealth of Australia 2023). On Lord Howe Island, comparable arguments apply on a smaller scale. Across the NSW Mid North Coast, intensive horticulture and dairy could substantially reduce reliance on unregulated river extraction through properly funded and regulated recycled-water schemes.

The regulatory barriers to indirect and direct potable reuse identified in the Commission's 2024 report (particularly in Victoria) are reflected in NSW practice (PC 2024). National leadership — not just technical guidance — is needed.

8. Extractive use, diffuse pollution and illegal activity in unregulated systems

Unregulated rivers and coastal lagoons on the NSW Mid North Coast are under sustained pressure from intensive horticulture, dairy, on-site sewage and — increasingly — from unlicensed water-take and unapproved farm dams. The current framework lacks enforceable numeric limits, consistent diffuse-source controls, and adequate compliance resourcing. The result is a visible and measurable decline in catchment condition that downstream LWUs, ecosystems and coastal communities are absorbing.

8.1 Diffuse-source pollution: the Coffs coast case

Hearnes Lake and Woolgoolga Lake, north of Coffs Harbour, are a documented example of what happens when intensive horticulture expands faster than diffuse-source regulation.

- In 2018, a mass fish kill at Hearnes Lake was linked to chlorpyrifos contamination from upstream agriculture; subsequent EPA investigation identified 25 non-compliance cases (NSW EPA 2019).
- Community-commissioned rain-event monitoring in 2021 (five catchment sites) detected **twelve separate pesticides** in the Hearnes Lake catchment, including benomyl (banned in Australia since 2006), boscalid, cyprodinil, dimethoate, fipronil, imidacloprid, iprodione, malathion, methomyl, omethoate, propiconazole and pyraclostrobin. Methomyl exceeded the ANZECC aquatic ecosystem guideline by approximately seven times; imidacloprid persisted in dry-weather flows, consistent with hothouse discharge (Coffs Harbour City Council 2022).
- Southern Cross University research has established a **>15% intensive-horticulture land-use threshold** beyond which catchment water quality becomes significantly degraded, with blueberry cultivation specifically implicated; nitrogen loads in Coffs Coast creeks have been measured at levels comparable to heavily polluted river systems internationally (Southern Cross University [SCU] 2020; Australian Broadcasting Corporation [ABC] 2020).
- SCU isotopic fingerprinting has attributed approximately 50% of coastal-creek nitrogen loads to synthetic fertiliser and the balance substantially to recycled sewage applied to irrigation; Woolgoolga Creek and Hearnes Lake are among the most affected systems (SCU 2020).
- In 2020, NSW EPA inspections found **28 of 31 blueberry farms non-compliant** with water pollution controls (Knaus 2022).
- NSW EPA's current Mid North Coast pesticides monitoring and compliance program — a 12-month rolling program testing approximately 150 pesticides quarterly — continues to detect imidacloprid, fipronil, dimethoate and tebuconazole in Woolgoolga Creek, Woolgoolga Lake and Hearnes Lake post-rainfall (NSW EPA 2025).
- An earlier (1989) estuarine fish kill in Woolgoolga Lake was linked to dieldrin/aldrin pesticide residues — chemicals banned decades ago but still detectable in lake sediments and oyster tissue, illustrating the multi-generational persistence of diffuse-source contamination in Intermittently Closed and Open Lakes and Lagoons (ICOLL) systems (Coffs Harbour City Council 2018).

The Hearnes and Woolgoolga systems discharge into the Solitary Islands Marine Park. Contamination has documented effects not only on aquatic ecosystem health (macroinvertebrate diversity, fish stocks, bird assemblages including osprey) but also on seafood safety — neonicotinoid residues have been recorded in local prawns and oysters (Knaus 2022; Birmingham 2025).

This is happening in a catchment where a \$250M+ blueberry industry has expanded rapidly since 2015 under a planning framework that has not kept pace. The most recent national-media investigation (October 2025) confirms the expansion trajectory and the continuing regulatory lag (Birmingham 2025).

8.2 Industrial, dairy and on-site sewage loads: the Bellinger River case

The Bellinger River is of exceptional conservation significance as the sole habitat of the critically endangered Bellinger River snapping turtle (*Myuchelys georgesi*). The 2015 mass mortality event that killed an estimated 90% of the wild population was caused by a novel ranavirus — Bellinger River Virus (BRV) — rather than an acute pollution incident, as confirmed by EPA investigation at the time and subsequently by peer-reviewed research (Zhang et al. 2018; NSW EPA 2015; Spencer et al. 2023). The species is now graded “rare” in the NSW State of the Environment 2024 report, with the wild population sustained by a Taronga-led conservation breeding program (NSW EPA 2024; Taronga Conservation Society Australia 2023).

The conservation status of the turtle is, however, only one dimension of the catchment’s fragility. The Bellingen Shire Water Quality Management Plan documents sustained catchment-scale pressures from (Bellingin Shire Council 2022):

- dairy shed effluent and nutrient runoff (including in the Yellow Rock Road sub-catchment);
- on-site sewage management systems (OSMS), with documented pathogen and nutrient migration risk into river reaches;
- turbidity, sediment and nutrient loading from cleared land and seasonal high-flow events.

The Bellinger unregulated river Water Sharing Plan sets long-term average annual extraction limits and operates on a “no new unregulated-river access licences” basis (DCCEEW NSW 2020). This is the correct direction, but enforcement and monitoring capacity in the Bellinger and its tributaries remain inadequate relative to the conservation value of the system. A catchment that supports a species that would otherwise be extinct in the wild warrants catchment protection of commensurate priority.

8.3 Illegal water extraction and the NRAR enforcement gap

Across the wider North Coast, compliance with water-take rules is patchy, and the Natural Resources Access Regulator (NRAR) has recently brought — and won — a series of prosecutions that make the scale of the problem visible:

- **Kempsey (Clybucca Estuary wetlands).** A commercial farming company and its director were prosecuted and found guilty in 2024–25 for constructing illegal dams (aggregate capacity approximately 165 ML) and undertaking unapproved excavation works for irrigated agriculture near protected wetlands. Penalties totalled approximately \$300,000 in fines plus \$155,000 in costs (NRAR 2024; NRAR 2025a).
- **Eungai / Warrell Creek (tributary to the Nambucca River).** A blueberry farmer and an earthmoving contractor were prosecuted in the Coffs Harbour Local Court (heard through 2025–26) for an unapproved dam extension used for irrigation storage. Each was fined \$20,000 plus \$12,000 in costs (NRAR 2025b).
- NRAR’s Public Register documents further unlicensed-take and unapproved-works matters across the North Coast (NRAR 2026).

These are visible outcomes and represent meaningful enforcement. They also represent the tip of the iceberg. Compliance officers are thinly spread across a very large unregulated-river estate. AS4747-compliant metering rollout — which the Commission’s 2024 report identified as a priority for NSW — remains incomplete on unregulated systems, which means that extraction above licensed volumes in many catchments is effectively undetectable unless a physical inspection is triggered (PC 2024). The regulator is doing the right things; it is under-resourced for the task at hand.

8.4 The downstream consequence

Downstream LWUs are required to meet increasingly stringent Australian Drinking Water Guidelines standards from increasingly contaminated source waters, with no enforceable mechanism to control the upstream contribution (National Health and Medical Research Council [NHMRC] 2022). This is a direct cost transfer from upstream polluters and unlicensed extractors to regional ratepayers, via the LWU water bill and via ecosystem decline that depresses tourism and seafood-sector income. The Commission’s 2024 findings on AS4747 metering and licence enforcement apply with particular force to unregulated river systems in our region (PC 2024).

9. Workforce

The water sector across our region is losing skilled staff faster than it can replace them. Regional LWUs compete for treatment plant operators, water engineers and compliance staff against Sydney Water, Hunter Water, mining companies and Commonwealth agencies. The pipeline from TAFE and university into regional water careers is thin.

A targeted workforce strategy for regional water, including structured secondment and expertise-sharing between metropolitan utilities (notably Hunter Water and Sydney Water) and regional LWUs (for example, Nambucca Valley, Kempsey, Bellingen), would materially reduce compliance risk and improve delivery capacity. DCCEEW is a logical convenor. Norfolk Island and Lord Howe Island should be included by default.

10. Recommendations

Recommendation 1 — Needs-based, lifecycle funding for regional LWUs

The Commission recommend that Commonwealth water infrastructure funding move from competitive capital-grant programs to needs-based, lifecycle funding frameworks that explicitly recognise the higher per-customer cost of delivery in regional and remote contexts. Operations, maintenance and asset renewal should be fundable alongside capital.

Recommendation 2 — Proportionate economic regulation for small LWUs

The Commission recommend that IPART and equivalent state regulators introduce a differentiated pricing-determination framework for LWUs below a defined scale threshold (for example, fewer than 20,000 connections), in which compliance cost is proportionate to risk and scale, with pooled or standardised regulatory processes across clusters of small utilities.

Recommendation 3 — Expanded and transparent Community Service Obligations

The Commission recommend that NSW Treasury, in consultation with IPART and regional LWUs, formalise an expanded CSO framework for council-operated water utilities that transparently funds the gap between cost-reflective pricing and affordability, calibrated for scale, isolation and catchment risk.

Recommendation 4 — Dedicated “isolated territories” category in national water policy

The Commission recommend that Norfolk Island and Lord Howe Island be recognised as a distinct isolated-territories category within national water policy and in the successor National Water Agreement framework, with a dedicated Commonwealth water resilience program covering:

- baseline desalination capacity on Norfolk Island;
- community-scale wastewater collection, treatment and recycled water delivery on Norfolk Island, with active nutrient-load reduction into the reef;
- rainwater storage augmentation, filtration upgrade and potential small-scale desalination feasibility on Lord Howe Island;
- integrated climate adaptation planning across both territories.

Recommendation 5 — National standards and funding for recycled water and circular water use

The Commission recommend a nationally consistent regulatory pathway for indirect and direct potable reuse, together with dedicated Commonwealth funding for recycled-water schemes in regional and remote communities where source-water constraints, cost, or environmental risk make conventional augmentation inferior.

Recommendation 6 — Regional water workforce strategy

The Commission recommend that the Australian Government, through DCCEEW and in partnership with state water ministries and the metropolitan utilities, establish a ring-fenced regional water workforce strategy, including structured secondment and expertise-sharing between metropolitan utilities and regional LWUs, and dedicated training pathways via regional TAFE and university providers.

Recommendation 7 — Enforceable controls on extractive use and diffuse-source pollution in unregulated systems, backed by compliance resourcing

The Commission recommend that the NSW Government, supported by Commonwealth co-funding linked to NWI/NWA compliance:

- accelerate the establishment of numeric long-term average annual extraction limits and AS4747-compliant metering on unregulated rivers and coastal lagoons of the NSW North Coast, with completion dates published;
- introduce enforceable diffuse-source nutrient, sediment and pesticide controls for intensive horticulture, dairy and on-site sewage in coastal catchments, with specific application to the Coffs coast ICOLL systems (Hearnes Lake, Woolgoolga Lake, Double Crossing and Bucca Bucca creeks) and to the Bellinger and Nambucca catchments; and
- materially increase compliance-officer resourcing for the Natural Resources Access Regulator and the EPA's North Coast pesticides monitoring and compliance program, recognising that recent successful NRAR prosecutions (Kempsey Clybucca and Eungai/Warrell Creek) represent visible enforcement against a much larger latent non-compliance caseload.

Catchment protection should be proportionate to the conservation, drinking-water and economic significance of the receiving system. In the Bellinger catchment, the continued survival of a critically endangered endemic species warrants upstream protection commensurate with that value.

Recommendation 8 — Integrate water and wastewater enabling infrastructure into Commonwealth housing supply funding

The Commission recommend that Commonwealth housing supply programs — including the Housing Support Program, the Housing Australia Future Fund enabling infrastructure stream, and any successor vehicles — explicitly recognise regional water and wastewater treatment and network capacity as a named eligible category, with **grant-based funding** (not solely concessional loans) proportionate to the dwelling yield unlocked. Where a regional LWU can demonstrate that treatment plant or network capacity is the binding constraint on State-designated growth corridors (as is now the case in Port Macquarie-Hastings), co-funding should be available on a needs basis without competitive grant-round delay, and the housing and water portfolios should jointly acquit the outcome.

The NSW Government's Low Cost Loans Initiative announcement of 24 April 2026 — a \$12.3M package including a \$7M repayable concessional loan toward the Cowarra Water Treatment Plant, said to unlock over 5,300 new homes — confirms that housing-enabling water infrastructure warrants dedicated support tied to dwelling yield. It does not, however, resolve the problem. At approximately 4.6% of the Cowarra WTP component value, fully repayable, and addressing only one project within a ~\$389M combined forward obligation, the instrument and the scale are not commensurate. Commonwealth action to establish a grant-based, dwelling-indexed housing-enabling water infrastructure stream is therefore reinforced, not displaced, by the State announcement. This recommendation is intended to close the gap between the Commonwealth's housing supply ambition and the regional water infrastructure reality on which that ambition depends.

11. Closing remarks

The Mid North Coast, Norfolk Island and Lord Howe Island are not marginal test cases. They are a representative sample of the structural weakness in Australia's current water service arrangements — weakness that is now materially visible as a housing supply constraint on the Mid North Coast and as acute public health and environmental risk on Norfolk and Lord Howe Islands. The National Water Agreement provides a useful platform. The Commission's task in this inquiry is to translate it into reforms that are operable at the scale of an off-grid rainwater-only island, a storm-exposed remote territory ...and a growing regional council whose water and sewer infrastructure program (~\$389M across Thrumster, Cowarra and Kew-Kendall on a total-scheme-envelope basis) is now stalling at current envelopes due to unfunded cost escalation — a position only partially addressed by the NSW Government's 24 April 2026 LCLI announcement.

Regional Development Australia Mid North Coast welcomes the opportunity to provide further evidence, case studies or technical detail at the Commission's request, and to participate in the interim-update consultation phase in June/July 2026.

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