



April 24, 2026

Productivity Commission
GPO Box 1428
Canberra City ACT 2601

Submitted via inquiry form: [Make a submission - National Water Reform 2026 | Productivity Commission](#)

RE: National Water Reform 2026 Inquiry – Call for Submissions

Dear Productivity Commission,

Autodesk (“we”, “us”, or “our”) appreciates the opportunity to provide comments on the Productivity Commission (Commission)’s National Water Reform 2026 Inquiry. We support the Commission’s efforts to assess progress under the 2024 National Water Initiative (NWI) and to identify opportunities to strengthen the security, resilience, and sustainability of Australia’s water sector. This submission establishes Autodesk’s views on several specific areas mentioned in Information Request Part A.

Autodesk is a global technology and services company that supports organisations in the Architecture, Engineering, Construction, and Operations industry, as well as in product design and manufacturing, and media and entertainment. In the water sector, Autodesk provides digital tools that support water infrastructure planning, design, construction, asset management, and operations, helping utilities, local councils, and public agencies improve coordination across the asset lifecycle and strengthen infrastructure resilience. Autodesk’s technology connects teams, data, and workflows, enabling more informed decision-making and better asset performance, which is increasingly important in a sector facing aging infrastructure, rising demand, and environmental pressures, and ultimately the need for more sustainable and efficient management of critical water resources.

We work with policymakers, utilities, and water sector leaders globally to support public policy that enables water infrastructure modernisation through connected data and digital delivery. Public policy support is enabling, in part, a transition within the water industry from fragmented records, static reports, and siloed information towards more connected digital workflows. For example, Autodesk’s *2024 Spotlight on Data and Digitalization in the Water Industry*¹ found that digital transformation in the water sector delivers measurable benefits, including improved productivity (33%), improved profitability (30%), increased sustainability (28%), and reduced costs (28%).

Additional research supports the need for, and opportunity presented by, stronger digital foundations in the water sector. For example, Esri’s *GIS and Digital Water* report² notes that digital transformation requires more than isolated tools; water utilities also need a system of record for assets, collaboration, and insights for analysis and decision-making. Research from the Smart Water Network (SWAN)³ on digital innovation within water utilities suggests that barriers to progress are as much institutional as technical, leading to uneven digital adoption and continuing difficulties in integrating and normalising data across multiple operational systems.

For Australian policymakers, these findings present an opportunity to support stronger and more consistent digital practices and interoperable standards that can help water utilities and public agencies make more effective use of data across planning, delivery, and operations. Supporting common data

¹ Autodesk’s 2024 Spotlight on Data and Digitalization in the Water Industry. Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

² [GIS & Digital Water: Transforming the Global Water Industry | Brochure](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

³ [SWAN Americas Report: How Utilities Organize for Digital Innovation - SWAN Forum](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.



environments, accelerated digital maturity, and more consistent data use across the asset lifecycle can improve the water sector's productivity, service reliability, and resilience outcomes.

It is in this context that we would like to provide input on *Information Request Part A - Key priorities for the Australian Government from 2024 to 2027* in coordinating across jurisdictions on water policy matters of shared interest, and supporting collaborative innovation and knowledge sharing efforts to facilitate best practice water management:

a. Funding and governance barriers affecting progress towards NWI outcomes in Autodesk's operating context.

In our operating context, the most significant barriers relate to the funding and governance settings that affect adoption at scale.

First, funding barriers constrain progress towards NWI outcomes where they do not adequately enable digital transformation. In particular, prevailing funding models often constrain upfront investment in foundational capabilities such as digital infrastructure, common data environments, advanced analytics, and workforce development. These constraints limit the capacity of water utilities and public agencies to implement integrated, data-driven approaches at scale. Evidence from Autodesk's *2024 Spotlight on Data and Digitalization in the Water Industry* indicates that cost remains the most frequently cited barrier to digital transformation (37%), followed by the time required to adopt new tools and build workforce capability (34%), and challenges associated with procuring and managing digital solutions (20%). Collectively, these factors slow the uptake of technologies needed to improve system performance and decision-making.

This misalignment between funding and procurement frameworks and digital delivery requirements directly impedes progress towards NWI objectives, which depend on timely access to high-quality data, efficient asset management, and coordinated, evidence-based decision-making. Addressing these barriers would require reform to funding models and procurement practices to better support long-term capability building, lifecycle value, and the effective implementation of digital solutions across the water sector.

Second, fragmented governance arrangements present a barrier to the effective delivery of NWI outcomes. Australia's water management framework is inherently multi-jurisdictional, with responsibilities distributed across states and territories under a non-binding intergovernmental agreement, leading to variable implementation and coordination challenges. Evidence indicates that these institutional arrangements contribute to inconsistent adoption of standards and fragmented data practices. For example, water data in Australia is often collected across disparate systems and organisations, resulting in formats that are not directly comparable or usable without transformation, limiting integration across the sector.

The Water Services Association of Australia (WSAA) has identified that the absence of consistent, shared standards and reporting frameworks leads to incomplete or inconsistent information flows between utilities, regulators, and infrastructure developers, constraining system-wide planning and coordination.⁴ While national initiatives such as the Bureau of Meteorology's performance reporting framework seek to standardise indicators across more than 300 entities, they rely on coordinated inputs from multiple jurisdictions and organisations.⁵ Collectively, these conditions inhibit the ability of water utilities and public authorities to implement integrated, data-driven approaches across the asset lifecycle.

⁴ [Why Australia needs clearer data centre water standards - Inside Water](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

⁵ [National performance reports: Water Information: Bureau of Meteorology](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

Non-mandatory standards may not be sufficient to achieve consistent, sector-wide implementation and coordinated governance, constraining progress in areas such as data management, hydraulic modelling, leak detection, asset planning, and operational decision-making. This misalignment directly undermines the achievement of NWI objectives, which rely on consistent, high-quality information and coordinated decision-making across jurisdictions.

b. Emerging risks currently affecting, or could affect over the next three years, NWI water reform objectives and outcomes.

We identify several emerging risks that could affect water reform objectives and outcomes over the next three years.

One emerging risk is that digital water reform outpaces utilities' capability to implement it effectively. The sector is facing aging infrastructure, increasing demand, mounting environmental pressures, and persistent workforce constraints. For example, the NSW Water Directorate's *NSW Local Water Utility Workforce Composition Report*⁶ has reported persistent vacancies in frontline and supervisory roles, alongside an aging workforce profile, highlighting the need for targeted workforce planning and capability development.

A second emerging risk is greater adoption of digital tools without the corresponding uptake of common standards, interoperable systems, or sustained cross-agency collaboration. The Australian Bureau of Meteorology issues water information standards and guidelines that support the comparison and sharing of nationally consistent water information. However, these are non-mandatory and rely on voluntary implementation.⁷ As utilities continue to invest in digital tools, inconsistent data management practices may reduce the value of those investments and hinder coordination across agencies. More consistent implementation of existing standards will become increasingly important as digitalisation deepens.

A third emerging risk is uneven investment in digitalisation. Research from SWAN and BlueTech indicates that adoption of technologies such as digital twins remains uneven.⁸ In their *Digital Twin Global Utility Survey*, 38% of utilities reported having digital twin solutions in place, while 46% did not. Without targeted support, uneven adoption may exacerbate disparities between better-resourced organisations and those with more limited capacity.

A fourth emerging risk is the need to strengthen resilience in water and drainage assets through better planning, design and digital delivery. For example, the February–March 2022 floods across coastal New South Wales and Southeast Queensland generated approximately 197,000 insurance claims, with estimated incurred losses of AU\$3.35 billion.⁹ These events are occurring in the context of climate change. Australia's *2022 State of the Climate* report notes that heavy rainfall events are becoming more intense, with short-duration extreme rainfall increasing by over 10% in some regions.¹⁰ Digital approaches such as GIS–hydraulic model integration, model-based drainage design, and lifecycle digital asset records can help agencies identify risk hotspots, test interventions, and target investment towards the highest-impact resilience upgrades.

⁶ [Workforce | NSW Water Directorate](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

⁷ [Guidelines and standards for water information | The Bureau of Meteorology](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

⁸ [SWAN-BlueTech Digital Twin Global Utility Survey Report - SWAN Forum](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

⁹ Insurance Council of Australia (3 May 2022). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

¹⁰ Bureau of Meteorology & CSIRO – *State of the Climate 2022*. Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

Finally, there is a risk of continued reliance on reactive decision-making if the sector does not improve how operational and asset data are collected, integrated, and used. Although utilities generate large volumes of data, many struggle to translate this data into actionable insights. Case studies demonstrate that improved data integration and predictive analytics can materially improve outcomes.¹¹ For example, Sydney Water has used predictive analytics to detect leaks early and prevent asset failures across a network of more than 21,000 km of pipes.¹² More broadly, predictive maintenance approaches have allowed water utilities to deliver annual savings of 10-20% in maintenance OPEX and 20-30% in CAPEX compared to reactive maintenance, while improving asset availability.¹³

c. Priority water reform actions to improve outcomes over the next three years.

We identify three priority water reform actions that would deliver the greatest improvement in Autodesk's operating context over the next three years.

First, the Commission should recommend the promotion of innovative financing models for technology deployment, as well as paving the way for new funding mechanisms and advantageous financing conditions, for publicly funded water resilience projects that demonstrate effective use of smart technologies. The National Water Reform 2026 Inquiry is an opportunity to maximize the value of public investments in water resilience, and to accelerate the parallel green and digital transition – all while respecting technology neutrality and vendor lock-in. Funding frameworks relevant for water resilience should incentivize smart and interoperable approaches to modernise ageing infrastructure and build out new infrastructure, and should foster the use of digital technologies (including common data environments) and digital twins to collect, organise and share data at scale (including through improved data governance at the level of utilities). In addition, funding approaches should become more strategic and outcome-oriented – for example, by granting beneficial co-financing rates and prefinancing terms to projects that demonstrate effective use of smart technologies to achieve water resilience goals. Such an approach can better support policy objectives on water resilience, security and sustainability, help de-risk investments in water infrastructure, and support deployment of innovative pilots.

Second, the Commission should incentivise greater digitalisation in Australia's water sector by recommending the development of Australian guidelines on public procurement of digital technologies for state and local authorities specific to the water sector, based on the Commonwealth Procurement Rules and existing policies and templates from the Digital Transformation Authority. The National Water Reform 2026 Inquiry is an opportunity to bring qualitative criteria (beyond price) to the forefront of public decision-making in Australia's water sector, adequately valuing projects that demonstrate how smart technologies (and a data-centric approach) can help deliver Australian objectives on water resilience, security and sustainability. Given the fragmentation of Australia's water system, non-binding federal guidance could help accelerate procurement of digital solutions, leading to better insights, more informed decisions, and improved management of water resources.

Third, the Commission should promote capacity building, exchange of best practices and inter-agency cooperation across States, including within the wider water ecosystem and with technology providers. There is a wealth of "hidden knowledge" among water services professionals in Australia, yet this expertise often remains siloed within local or state boundaries. When it comes to the use of

¹¹ [2018-Asset-Management-Water-Systems-Study.pdf](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

¹² [Sydney-Water-Case-Study-June-2019-Final.pdf](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.

¹³ [How to use analytics to improve water asset management | McKinsey & Company](#). Case studies and third-party data are provided for illustrative purposes only and are not a guarantee of future performance.



digital technologies and data, a more structured (and cloud-friendly) approach to knowledge sharing and capacity building is needed to advance a truly Australian-wide approach to water resilience. This approach could be achieved through federally or state-coordinated platforms for peer-to-peer exchange, dedicated centres of excellence for water digitalisation, thematic working groups under existing networks, and joint training programmes developed with industry and research bodies. Such initiatives could cover best practices and learnings using standardised toolkits and guidelines on any relevant topic, such as how to implement KPIs on water efficiency and how to promote data exchange at the national, regional or local level.

We appreciate the Commission's consideration of our comments. If you have any questions, please contact me at the address below.

Best regards,

Director, Government Affairs & Public Policy, Asia-Pacific Japan