



AUSTRALIAN
LOCAL GOVERNMENT
ASSOCIATION



2021 National State of the Assets Report

OUR ASSETS, OUR OPPORTUNITY



THE 2021 NATIONAL STATE OF THE ASSETS REPORT



OUR ASSETS, OUR OPPORTUNITY

When local governments invest in public infrastructure, we create jobs that are vital to driving Australia's locally led economic recovery, whilst ensuring no local community is left behind.

Councils own and manage around a third of Australia's community infrastructure, including roads and cycle paths, parks and gardens, bridges, libraries, community centres, sporting grounds, and swimming pools.

These community facilities support nearly every aspect of our day-to-day activities. They keep us safe, healthy, connected, and employed.

By providing safer cycle paths that keep people moving or recreation facilities that bring communities together, councils are creating jobs, generating economic activity and enhancing community wellbeing.

Maintaining infrastructure is just as important as building new infrastructure. We need our libraries, swimming pools and roads to be in good working order to meet our current and future needs.

This National State of the Assets Report (NSoA) is the latest in a series of reports commissioned by the Australian Local Government Association (ALGA) to monitor and assess how councils are addressing the challenges of maintaining council infrastructure.

This Report helps everyone better understand whether our infrastructure is getting better, how it can be better managed and improved, and whether councils need more support through state, territory and federal government funding.

The key finding in this year's report is that two-thirds of all local government assets are in good condition while around one-third are not.

Specifically, nearly 1 in 10 of all local government assets need significant attention, and 3 in every 100 assets may need to be replaced.

It highlights that there is a gap between what local governments can spend on community infrastructure assets, and what we need to spend to ensure our assets are maintained.

This Report highlights the importance of continuous improvement in our systems to support our communities for the future – including helping councils invest in asset management training, technology and software enhancements, skills development, and information sharing.

Replacing poor quality infrastructure is estimated to cost \$51bn– and replacing infrastructure in fair condition will range from \$106bn to \$138bn.

As communities adapt to the new physical, social, and economic realities of a living with COVID, we have a once-in-a-generation opportunity to renew our public infrastructure and employ people to create a new skilled economy that supports our nation's growth, productivity, and prosperity.

Well-targeted infrastructure investment creates jobs and generates lasting economic, social and environmental benefits for communities.

It lowers costs for business and governments, connects workers to their jobs, and plays a vital role in place making and community wellbeing.

Collecting just 3.5 percent of Australia’s taxation revenue, local governments need and welcome the support of other levels of government.

This Report reinforces the need for the federal government to increase Financial Assistance Grants – untied grants from the federal government to councils – back to at least one percent of total federal taxation revenue.

It also reinforces the need to continue the critical Federal Roads to Recovery and Bridges Renewal Programs – and for additional targeted funding to be made available – so councils and communities can replace and renew essential assets that are no longer safe or fit for purpose.

We look forward to working with state, territory and federal governments to ensure no community is left behind, to invest together in our nation’s infrastructure and develop a more skilled workforce for our future.

Together, we have the opportunity to assist communities grow their local economies and build back the quality of life we have missed during COVID, and to which we aspire.



Cr Linda Scott
ALGA President

BACKGROUND



The Australian Local Government Association (ALGA) is the national voice of local government, representing 537 councils which employ more than 190,000 people across the country.

Collectively, local government is responsible for one-third of all Australia’s public infrastructure assets¹. As custodians of these important community resources, the management of these assets, including, capital acquisition, maintenance and replacement is a major challenge and core responsibility for Australian councils.

This publication is based on the findings of the 2021 National State of the Assets (NSoA) Technical Report 2021 prepared by the Institute of Public Works Engineering Australasia (IPWEA) in partnership with ALGA.

The 2021 NSoA Technical Report is the 4th in the series of comprehensive reports commissioned by ALGA with the aim to better understand the scope and magnitude of local governments role in managing its non-financial assets. The NSoA Report is based on survey data provided by professional officers responsible for engineering and asset management from 454 councils (85% of all councils) across seven asset categories.

Scan or click the QR code to view a full copy of the Technical Report.



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¹ Sourced from ALGA submission to Infrastructure Australia Audit 2019.

WHAT THE REPORT SAYS

At the end of the 2019-20 financial year local government had control of an \$523bn assets portfolio. Non-financial infrastructure assets were valued at \$342bn accounting for 65 percent of total portfolio.

Figure 1 shows the value of financial and non-financial assets controlled by local government (June 2020).

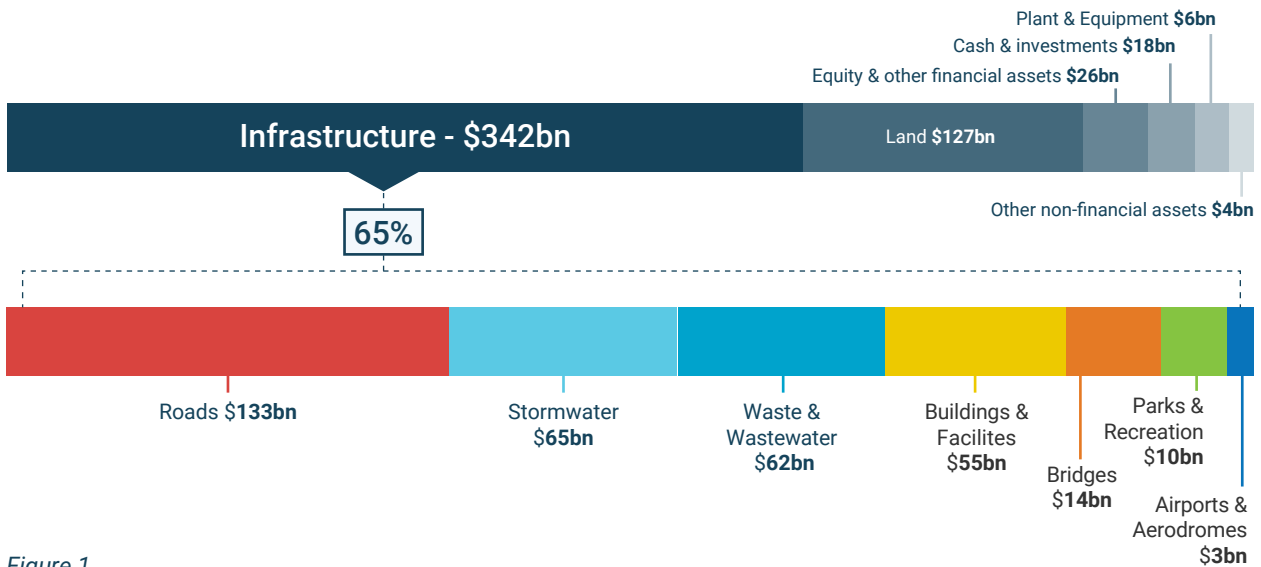


Figure 1

The NSoA Report is based on survey data provided by professional officers responsible for engineering and asset management from 454 councils (85% of all councils) across seven asset categories.

ASSET CATEGORIES INCLUDE:



The survey collected data on three simple indicators: condition, function and capacity measured as a proportion of the total replacement cost of each asset class.

- ▶ **Condition** - a measure of the quality of the services provided by local government infrastructure. It helps us understand how good the service is and where it is in its lifecycle.
- ▶ **Function** - a measure of whether the service is 'fit for purpose'. It helps to understand if the service is suitable for its intended purpose or future needs in response to changing circumstances.
- ▶ **Capacity** - a measure of utilisation and whether we need more or less of these services in response to original design thresholds. It helps to understand if the service is under or over utilised and helps us understand future needs due to demand and growth.

They are assessed as: good, fair or poor to very poor, as outlined over the page.



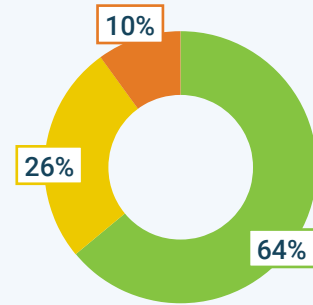
CONDITION

On average:

10% of local government infrastructure assets are in poor condition with significant defects and requires higher order cost and interventions.

26% of local government infrastructure assets are in fair condition with defects requiring regular and/or significant maintenance to reinstate the service.

64% of local government infrastructure assets are in good condition infrastructure has minor defects but will require increasing planned maintenance.



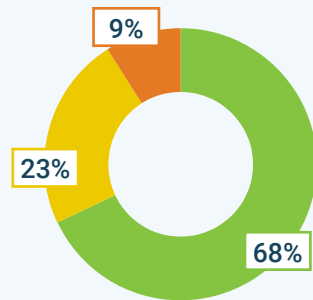
FUNCTION

On average:

9% of local government infrastructure assets have poor function and have limited ability to meet a program/service needs.

23% of local government infrastructure assets have fair function with most of them meet program/service needs with some inefficiencies and ineffectiveness.

68% of local government infrastructure assets have good function and meets program/service delivery needs in an acceptable manner.



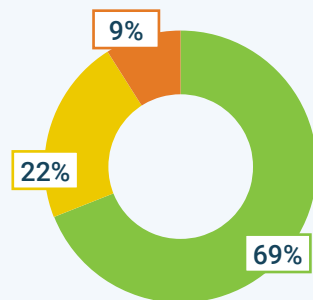
CAPACITY

On average:

9% of local government infrastructure assets have poor capacity with demand exceeding or is well below design capacity displaying significant operational issues.

22% of local government infrastructure assets have fair capacity with demand approaching design capacity and/or operational problems occur regularly.

69% of local government infrastructure assets have good capacity with usage being within design capacity and occasional operational problems experienced.





On a positive note, these results demonstrate that within existing resources 60%-70% of local government assets are in relatively good condition, function reasonably and are well utilized. However, around 20 – 26% of local government assets are only fair, and 10% are poor to very poor.

These results are consistent with the 2018 NSoA Report and shows that despite continued investment, the condition of local government community assets appears to have plateaued.

It is estimated that the replacement cost of all poor to very poor assets is \$51 billion⁴. The estimated replacement cost of fair assets are in the order of \$106bn - \$138bn.

While not all poor and fair infrastructure needs immediate replacement, it is important that each item of infrastructure be continually assessed to fully understand the risks and implications of fair and poor condition infrastructure. Of particular concern are potential safety risks, limitations on service levels to meet population growth and the productivity of businesses and Australian industry.



⁴ This exceeds local government annual total revenue



ROADS

Local roads make up approximately 39% of total local government infrastructure assets and make up 77% of the national roads network by length.

These roads provide vital access and economic and social networking services including for example mobility services to provide children with schools, social connectivity and goods to market.

Roads make up 39% of total local government infrastructure and has a replacement cost of \$204bn. Despite continued expenditure, including through the Australian Governments Roads to Recovery program, \$17.8bn are in poor condition, \$16.0bn have poor function and \$14.3bn have poor capacity.

The local roads network is comprised of 39% sealed road (length 265,000 km), and 61% (length 413,000 km) unsealed roads.

These results indicate that 8% of seal roads and 14% of unsealed roads are in poor condition, function and capacity and are close to reaching the end of their useful life. The replacement cost of both sealed and unsealed roads is estimated to cost \$17.8bn.



39% of total local government infrastructure

replacement cost of \$204bn

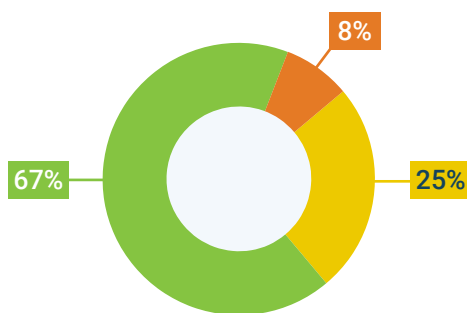
- \$17.8bn are in poor condition
- \$16.0bn have poor function
- \$14.3bn have poor capacity

The replacement cost of sealed roads is in the order of \$14bn and unsealed roads, many of which are in rural and regional areas, is \$3.8bn. This is in part because sealed roads are more expensive to replace than unsealed roads.

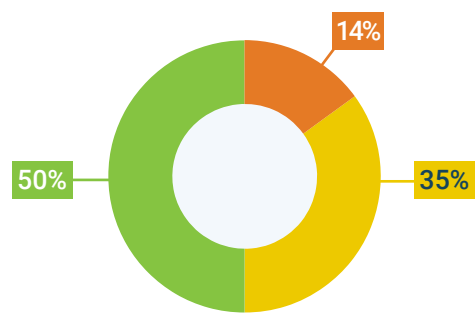
Poor to very poor roads may have significant social, safety and productivity implications at an individual level as well as a network level. For example, a poor section of road or poor condition roads on important freight routes can have a significant negative impact on regional, state and ultimately national productivity.

At a community and business level poor roads compromise access to goods and services, create bottlenecks for freight and increases the risk to passenger safety.

CONDITION OF SEALED ROADS



CONDITION OF UNSEALED ROADS



Good Fair Poor, Very Poor

Local Government Roads - 678,000km 77%

State/Territory Roads 200,000km 23%

Sealed 39%

Unsealed 61%

BRIDGES

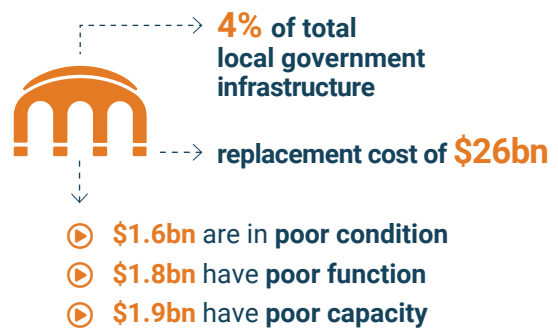
Bridges are an important part of the road transport network. They come in many forms including road bridges and major culverts.

These assets are high-cost investments and have a high consequence of failure, if not managed properly.

Impassable bridges or bridge failure can have major safety, social and economic implications. Local councils have the responsibility for more than 22,000 of these structures. Many of these structures are old and do not meet the requirements of the modern transport fleet.

Bridges make up 4% of total local government infrastructure and have a replacement cost of \$26bn. The 2021 NSoA Report shows that in total \$1.6bn are in poor condition, with \$1.8bn having poor function and \$1.9bn having poor capacity.

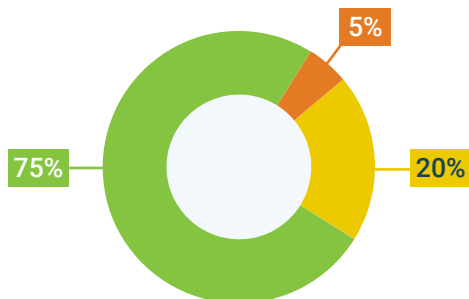
Bridges are critical assets on the road network. Their construction can fall into two principal categories being concrete and timber.



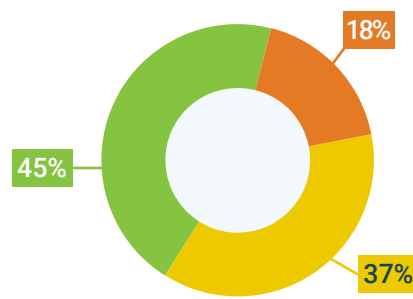
Results show that in total, 5% of concrete bridges are in poor condition with a replacement value of \$1.2b and 18% of timber bridges with a replacement value of \$310M are in poor condition.

For the more than seventy years, road authorities including local governments have invested in bridge maintenance and construction. These investments have been essential in keeping bridges safe and open to traffic. Yet, despite this investment including through the Australian Governments Bridges Renewal Program, many bridges are old and not fit for purpose. In part, this is because grant funding appears to be allocated to structures on 'high order' roads while many local government timber bridges are located on 'low order' roads having many 'first and last mile' implications if left in a poor state of repair.

CONDITION OF CONCRETE BRIDGES



CONDITION OF TIMBER BRIDGES



Good Fair Poor, Very Poor



BUILDINGS & FACILITIES

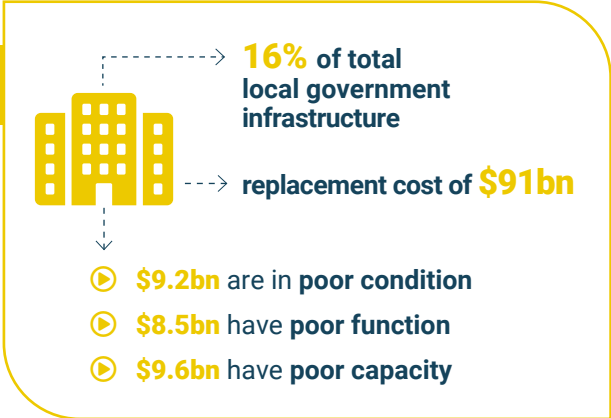
There are many specific building assets that are managed by local government. Compared to most other local government assets, council buildings serve a multitude of functions.

For a typical local government, these functions can include:

- ▶ Administration
- ▶ Libraries
- ▶ Community Halls
- ▶ Art Galleries/Cultural Centres
- ▶ Entertainment Centres
- ▶ Sport and Recreation Facilities
- ▶ Housing
- ▶ Works Depots

Buildings and facilities make up 16% of total local government infrastructure and have a replacement cost \$91bn.

The 2021 NSoA Report shows that \$9.2bn are in poor condition, with \$8.5bn having poor function and \$9.6bn having poor capacity.



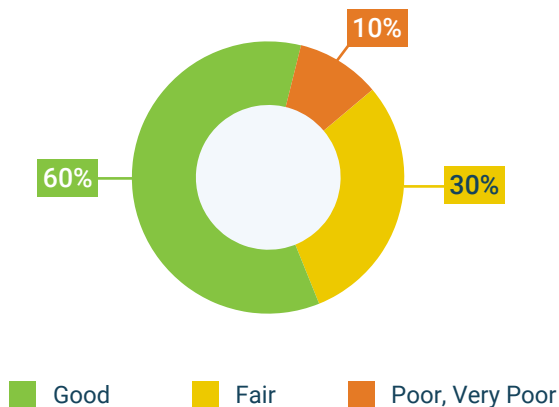
Buildings are complex assets with many material components lasting anywhere between two and 80+ years. In addition, changing technical and community standards for buildings and facilities place add to the complexity of managing these assets. For example, the demand for greater efficiency of energy systems in council buildings.

While some council buildings are under the direct management of councils, many are managed on a day-to-day basis by other entities such as sporting clubs, community groups or other such parties that may have built on council land under a lease arrangement. Ultimately however, ownership resides with the council and they should be recognised by the council on its asset register, valued and accounted for under the Accounting Standards.

The task of monitoring the performance of buildings and facilities is resource intensive, requiring skilled professionals to make careful judgements on the remaining life of a vast array of materials and critical components.

Understanding the remaining life of critical components helps determine the timing of future outlay requirements ensuring the asset provides the services the community expect. It is therefore critical that data and information systems are configured to support this objective.

CONDITION OF BUILDINGS & FACILITIES





PARKS AND RECREATION

Australians spend a lot of time visiting local parks and recreational facilities.

A typical council park may contain several assets, including;

- ▶ Playground
- ▶ Toilet Block
- ▶ BBQ Area

Park & Recreation assets make up 3% of total local government infrastructure and have a replacement cost of \$16bn.

NSoA shows that 8% are in poor condition with a replacement cost of \$1.3bn, \$1.1bn have poor function and \$1.4bn have poor capacity.

The task of monitoring the performance of parks and recreation is also resource intensive. For the asset manager, a park generally has a higher operating cost compared to capital investment than any other asset class local government has responsibility for considered in this report. For example, urban tree management in public spaces is an ongoing challenge particularly from a public safety perspective.

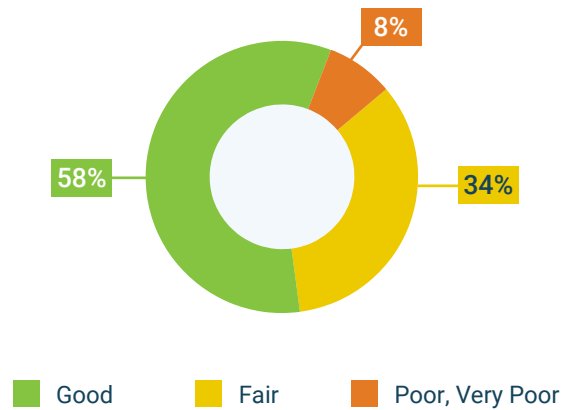
With limited space in urban areas many councils are required to be more creative by building park projects that provide mutual benefits, such as public access spaces that also serve as flood control.

3% of total local government infrastructure

replacement cost of \$16bn

- ▶ 8% are in poor condition
- ▶ \$1.1bn have poor function
- ▶ \$1.4bn have poor capacity

CONDITION OF PARKS & RECREATION





STORMWATER

Stormwater systems range from large concrete open channel storm drains, roadside drains, and flood detention basins to water sensitive urban designs and natural riverine systems.

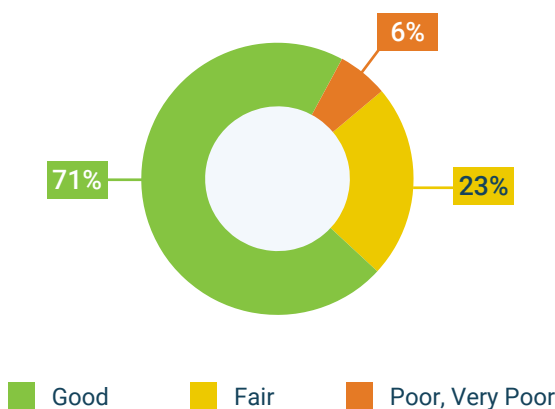
While stormwater management is the responsibility of both state and local governments, local government manages around \$65bn of stormwater infrastructure assets.

Stormwater assets makeup 19% of total local government infrastructure and have a replacement cost of \$94bn.

NSoA shows that \$5.3bn are in poor condition, \$11.0bn have poor function and \$12.1bn have poor capacity.

As our cities, towns and suburbs expand the increased run off due to the greater number of impervious surfaces, (i.e., more concrete, paved roads and roofing), the amount of stormwater runoff increases. Coupled with increasing intense rainfall events, there is potential to overwhelm the existing stormwater infrastructure networks, which were designed for lower levels of rainfall intensity and runoff.

CONDITION OF STORMWATER



19% of total local government infrastructure

replacement cost of \$94bn

- ▶ **\$5.3bn** are in **poor condition**
- ▶ **\$11.0bn** have **poor function**
- ▶ **\$12.1bn** have **poor capacity**

Most stormwater assets in Australian urban areas are made of concrete and generally require replacement every 100 to 150 years. In many towns and cities most of their drainage infrastructure is many decades old and designed to meet standards which are no longer appropriate.

Many of the country’s legacy urban stormwater systems are struggling with the high cost of retrofits needed to address urban flooding and climate change. Upgrading large networks of aging systems underneath densely populated areas carries significant costs and engineering challenges.

Rural areas serviced by open channel drains are not designed to achieve urban drainage outcomes. Consequently, rural drains may need to be upgraded or replaced with ones that are more appropriate when urban areas expand into these locations. This is rarely an issue in large urban redevelopments as trunk infrastructure already exists.

Given the many priorities that local governments, stormwater management has tended not to receive the focus than for other assets and many of the public good outcomes that could be achieved from better stormwater management are not within the mandate of local government to deliver.

With few dedicated funding sources, multi governance and ownership structures, expansive networks of aging assets, increasingly stringent water quality regulations, and concerning climate change projections, the expected performance of stormwater systems is likely to decline without sufficient and effective intervention.



WATER & WASTEWATER

Water and wastewater infrastructure directly affects our public health. When it's working properly, it provides us with safe drinking water and limits the pollution of our local rivers and streams.

The local government water and wastewater sector is capital intensive and have an estimated to replacement cost \$98.5bn. Councils indicate around 91.6% of this replacement cost is operating at the original design capacity, while the remaining 8.4% (\$8.3bn) has reached or exceeded it.

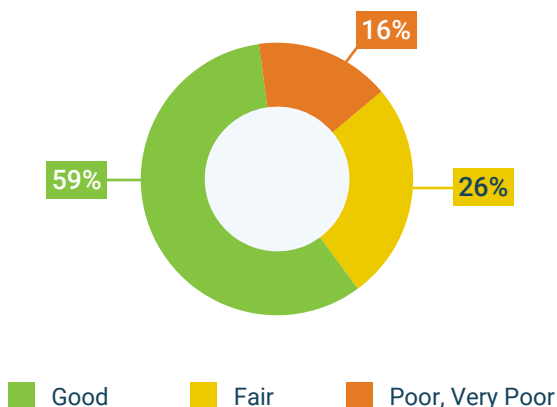
Local government, primarily in regional and rural parts of New South Wales and Queensland are responsible for the pipes and facilities that bring clean water to our homes, collect, and treat wastewater, which are essential to the day-to-day functioning of our communities.

Fifty South Australian councils currently operate 175 Community Wastewater Management Systems (CWMS) throughout that state.

Water and wastewater assets make up 18% of total local government infrastructure and has a replacement cost of \$99bn.

NSoA shows that 16% are in poor to very poor condition and have a replacement cost of \$15.5bn, \$7.8bn have poor function and \$8.3bn have poor capacity.

CONDITION OF WATER & WASTEWATER



19% of total local government infrastructure

replacement cost of \$94bn

- ▶ \$15.5bn are in poor/very poor condition
- ▶ \$7.8bn have poor function
- ▶ \$8.3bn have poor capacity

In 2020, about a half of all local councils who have responsibility for water and wastewater systems had an asset management plan in place to help prioritise their lifecycle investments. This is the same result as in 2018.

Whilst tighter planning and reporting controls exist for water & wastewater functions controlled by local government, there is a case for greater scrutiny to ensure councils can proactively manage water and wastewater infrastructure investment rather than reactively respond to pipeline and equipment failures.

The 2019 Australian Infrastructure Audit found that the 'urban water sector faces challenges, including the impacts of climate change, population growth, ageing assets, and changing needs and expectations from users. Failure to adequately address these challenges could lead to rising water bills, as well as exposing users to risks of declining service quality and reliability.

Without good governance and planning processes in place for these challenges, there could be severe urban water shortages or restrictions in many parts of the country.

For regional towns, water utilities often rely on a single supply source, with no physical link to an alternative bulk water supply. The lack of supply diversification creates further water security risks for these communities.



AIRPORT & AERODROMES

In Australia, there are around 320 airports certified or registered by the Civil Aviation Safety Authority (CASA) as having significant regular passenger transport services and some 2,000 much smaller aerodromes, airfields, and landing strips across the country.⁵

The 11 largest airports in Australia (all capital cities, plus Gold Coast, Cairns and Alice Springs) account for about 87 per cent of overall passenger traffic and make the greatest economic contribution in terms of direct and indirect employment.

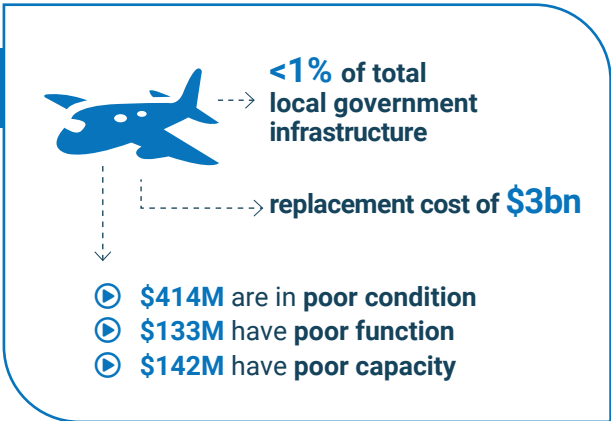
Except for several defence and private airfields, most of the remaining airports are owned and operated by approximately 200 local government entities in the regional, rural, and remote areas of the country, each having a fundamental role in serving both their local communities and the Australian economy more broadly.

In the 1950s, ownership of many Australian government-owned airports was transferred to local governments and between 1989 and 1993 they were given full management and financial responsibility for them.

Under the transfer deeds, councils are obliged to continue owning and operating these aerodrome facilities unless they receive federal government permission to close or privatise.

These local government-controlled airports and aerodromes provide essential services for the local community including passenger transport, tourism, postal services, air ambulances, emergency services, crop dusting, surveying, and flight training. In some cases, the airport is the only means of passenger access to and from the local community, for example King Island and Flinders Council in the Bass Strait and remote communities in northern Australia during the wet season.

The composition of these airports typically include land, runways, taxiways, aprons, control tower, general aviation storage & maintenance facilities, terminal & administration buildings, parking, roads, drainage, water & wastewater systems, power supply and associated operating assets that provide essential services to a range of customers.



Airport and aerodrome assets make up less than 1% of the total infrastructure and have a replacement cost of \$3bn.

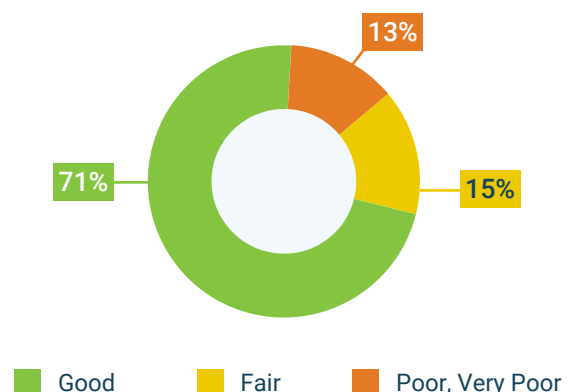
It is estimated that \$414M are in poor condition, \$133M have poor function and \$142M have poor capacity.

Despite their importance, Australia's regional airports face significant challenges in maintaining the service they provide to their local communities. Many regional airports in Australia are operating at a loss each year and are heavily dependent upon cross-subsidisation by their local government owners who face multiple and competing demands on their limited financial resources.

A 2016 Australian Airports Association regional airport infrastructure study identified many regional airports are operating runways and infrastructure that is 70+ years old, with substantial upgrades needed to meet modern aviation safety standards.⁶

At the time, it was reported the annual budget deficit will be \$17 million per year, equating to a \$170 million shortfall in essential infrastructure and maintenance funding at regional airports over the next 10 years.

CONDITION OF AIRPORTS & AERODROMES



⁵ Airservices Australia - Aeronautical Information Package (AIP)

⁶ Regional Airport Infrastructure Study (AAA, 2016).



The NSoA is based on survey data provided by 454 councils⁷ (85% of all councils) across seven asset categories.

The report notes that all data required for the NSoA can be found or determined from council assets management plans and long-term financial management plans. However, most councils expressed higher confidence in their condition assessment data compared to function and capacity data and that less than 20% of councils say they base their infrastructure performance data on high quality evidence, such as sound and current records, procedures, investigations, and analysis.

Data confidence is inextricably linked to:

- ▶ Asset management and financial planning and reporting, knowledge, and capability;
- ▶ Information and predictive modelling systems;
- ▶ Decision support for affordable service delivery options;
- ▶ Investment decisions on acquiring new assets, plus ongoing operation, maintenance and/or renewal of existing assets; and
- ▶ Organisational capacity to engage with external stakeholders.

The Technical Report found that:

- ▶ One third of councils do not have an asset management plan adopted for their major assets, or if they do, they are out of date.
- ▶ 86% of responding councils say they had adopted a long-term financial plan, an increase from 72% in 2013.
- ▶ Of the 67% of councils who said they had asset management plans in place, only two thirds of councils (66%) included the financial projections in the financial plan.

This finding highlights the importance of further work and capacity building within local government including the need for continuous improvement of current staff to develop and implement credible, reliable and up to date asset management plans and long-term financial plans. Further, the need to address the absolute shortage of appropriately skills staff within the sector.



⁷ It should be noted that the collection of survey data from councils is always challenging. For the 2021 NSoA Technical Report new data was provided by 55 percent of participating councils and 40 percent of councils rolled over previous data. A data validation study was completed to increase the confidence levels of the 2021 NSoA results..



ALGA set out commissioning the NSoA to help the local government sector and interested parties to understand whether “...local government infrastructure is getting better, worse or staying the same”.

Importantly, the answers to these questions can help identify ways in which they can be managed to better meet the needs of every Australian.

The 2021 NSoA Report shows that within existing resources and capacity constraints the condition, function and capacity of local government assets has essentially plateaued.

The report shows that while overall 64 percent of local government infrastructure assets are in good condition, 10 percent are in poor to very poor condition and 26 percent only fair. It is estimated that the replacement cost of all poor to very poor assets is \$51bn⁸. The estimated replacement cost fair assets are in the order of \$106bn - \$138bn.

Detailed analysis was undertaken of each asset category of local government assets. These included: roads – sealed and unsealed; bridges – concrete and timber; buildings & facilities; parks & recreation; stormwater, water & wastewater and airports & aerodromes. The results show that while there is some variation between categories, each require attention and additional investment beyond current levels if the condition, function and capacity of these assets are to improve.

While not all poor and fair infrastructure needs immediate replacement, it is important that each item of this infrastructure assets is assessed to fully understand the implications including the risks associated with each specific items

of infrastructure. Of particular concern are the associated with safety risks, quality and levels of service to meet current and growing population needs and limitations to the productivity of businesses and Australian industry.

The task of monitoring the performance of local government assets in all categories is resource intensive, requiring skilled professionals to make careful judgements on the remaining life of a vast array of materials.

The Reports highlights the importance of reliable quality data to support decision-making and the critical role of asset management planning and long-term financial plans in all councils. Noting that many councils expressed higher confidence in their condition assessment data compared to function and capacity data confidence it highlights the need for capacity building and skills development within the sector to develop, strengthen and implement credible, reliable and up to date asset management plans and long-term financial plans.

This work is critically important not only to councils but in some cases, such as roads and bridges improved data and support systems are critical for to adequately progress a number of national transport reforms including heavy vehicle reform and road user charging.

The 2021 NSoA contains information that important implication for councils, State and Territory Local Government Associations and states and territories. The ALGA Board has referred the technical Report to the ALGA Local Roads and Transport Advisory Committee to consider and provide advice on ways to take these issues further.

⁸This exceeds local government annual total revenue