

Raising the bar

Managing climate change risk in public authorities



September 2022

Arjuna Dibley, Nick Young and
Toby Phillips

Cpd CENTRE
FOR POLICY
DEVELOPMENT

ABOUT CPD

The Centre for Policy Development (CPD) is an independent, values-driven, and evidence-based policy institute. Our motivation is an Australia that embraces the long term now. CPD exists to solve the biggest policy challenges facing Australia and the region, and to take people on the journey solving them. Our policy development seeks to advance the wellbeing of current and future generations.

CPD's core model is three-fold: we create viable ideas from rigorous, cross-disciplinary research at home and abroad. We connect experts and stakeholders to develop these ideas into practical policy proposals. We then work to convince governments, businesses, and communities to implement these proposals. CPD has staff in Sydney, Melbourne, and Jakarta, and a network of experts across Australia.

We are not-for-profit: donations to our Research Fund are tax deductible.

More information about CPD is available at cpd.org.au

Acknowledgements

The authors gratefully acknowledge financial support of the NSW Government for part of this work, as well as for hosting a roundtable and feedback session from government officials. We appreciate detailed comments received from several NSW Government officials to a draft of this report. We contacted officials from all governments referenced in this report and are grateful for feedback from the Victorian Government. We thank Minter Ellison lawyers for peer reviewing the legal analysis contained within this report, and Professor John Wiseman and Dr Claire Palmer for their helpful comments on a draft of this report. Scott McInnes provided invaluable research assistance in the initial stages of this report's development and writing.

CONTENTS

Executive summary	3
Introduction	4
Material climate change risk developments for public authorities since 2019	5
Definition of 'public authority' in this update	11
Scope and nature of duty on GOCs to consider climate change risks in NSW, WA, and QLD	12
Steps taken by governments to manage climate change risks since 2019	14
Disclosure of climate change risks by GOCs in 2020	19
Future policy response	23
Conclusion	27
Appendix 1: Detailed Legal Analysis of Public Authority Directors' Duties in New South Wales, Queensland, and Western Australia	28
Appendix 2: Research Methodology	35

About the authors

Dr Arjuna Dibley is a Fellow at the Centre for Policy Development, an Honorary Research Associate at the University of Oxford's Smith School for Enterprise and Environment, and a Director at Pollination.

Nick Young is an Australian lawyer and a research assistant in the Oxford Sustainable Law Programme.

Toby Philips is Program Director, Sustainable Economy, at the Centre for Policy Development and Executive Director of the COVID-19 Government Response Tracker at the University of Oxford's Blavatnik School of Government.

1. Executive Summary

This paper updates our [2019 discussion paper *Public Authority Directors' Duties and Climate Change*](#), and climate change risks for governments have risen substantially since the publication of that paper. Physical risks have increased as emissions continue their growth trajectory. Transition risks are also growing, particularly as investors are starting to focus on climate change risks for sovereign borrowers. Liability risks too, are increasing, with governments facing increased attention by litigators.

Building on our 2019 paper, we show that in addition to Commonwealth and Victorian public authorities, directors of government-owned companies (GOCs) in NSW, WA and QLD may also be subject to a duty to account for climate change risks. However, there are limitations on the extent to which such duties create direct liability risks for such directors.

Through analysis of publicly available annual reports, alongside the guidance and legislation that governs GOCs, we observe a growing recognition of climate change risks to public authorities across states and the Commonwealth. Several governments have developed tools to assess physical risks and some jurisdictions have encouraged entities to report climate change risks in their financial statements.

However, in some of the jurisdictions we studied, the public documentation showed limited or no assessment, management and reporting tools in place. In some jurisdictions, there was not a holistic approach to managing climate change risks which accounts for the capabilities and powers of public authorities. Further, among jurisdictions we studied, there were inadequate tools and guidance with respect to managing transition risks of state assets.

At the entity level, climate change risks are also not often reported. We analyse annual reports published in 2021 by Commonwealth, state, and territory authorities, and find that only a small proportion discuss climate change and climate change risk management. However, we expect this small number of entities conducting climate change risk analysis, management, and reporting to grow, especially in light of recent commitments from state governments and the Commonwealth Government.

Considering the emerging but still inadequate response to public authority climate change risk management, we recommend that governments concentrate their future policy response on six areas to maximise the quality, effectiveness, and impact of climate change risk management:

1. **Give clear and transparent policy direction through ministerial statements**
2. **Standardise the technical frameworks for risk assessment, particularly around financial risk disclosure (eg. by adapting the private sector framework from the Task Force on Climate-related Financial Disclosure, TCFD)**
3. **Create a whole-of-government picture of climate risk exposure**
4. **Leverage audit offices' authority to consider climate change risks among government agencies and/or public authorities**
5. **Invest in building capability and capacity**
6. **Influence private sector take-up of climate change risk reporting**

2. Introduction

Government-owned and managed corporate entities, or “public authorities”, are significant actors within the Australian economy. Such authorities are owners and stewards of important assets including superannuation funds, water and land. They are also providers of essential services such as water and electricity. These corporate entities, and the assets they manage, both impact and are impacted by climate change in various ways. In 2019, CPD published a discussion paper on the duties of directors of public authorities to account for climate change risks. The 2019 paper examined Commonwealth and Victorian law and determined that directors of public entities may have a duty to account for climate change risks in their decision-making processes. This paper updates our 2019 discussion paper and expands its findings in three important ways:

- » We consider changes in the risk environment for public authorities since our previous paper. We highlight that physical, transition, and liability risks for government-owned entities have increased as more governments, investors and litigators begin to understand the role of state actors in both impacting upon and managing climate change
- » We expand the jurisdictional coverage of our original paper. We consider the extent to which directors of specific public authorities in New South Wales, Queensland and Western Australia have duties to consider climate change risks in their decision-making. We focus particularly on government-owned corporations (GOCs) in these jurisdictions
- » We provide some systematic insights into how public authorities across all Australian jurisdictions current assess and manage climate change risks. By studying publicly available information about public authorities operating in climate-exposed sectors, we observe that the efforts of public authorities in managing climate

change risks are mixed. The reporting practices of some public authorities are moving towards best practice. But the reporting practices of many public authorities are not. We highlight steps that some states and public authorities are taking to manage climate change risk in the hope that others may follow their approach

The paper is organised as follows:

- » Section three, following this introduction, updates evidence in relation to the material physical, transition and liability risks which has become available since our last paper in 2019
- » Section four defines the way in which we use the term ‘public authority’ in the context of this paper
- » Section five considers the scope and nature of the duty on GOCs to manage climate change risks
- » Section six considers the steps governments are currently taking to manage climate change risks of public authorities
- » Section seven analyses public authority annual reports and other documents to draw some high-level conclusions regarding where reporting is approaching best practice
- » Section eight outlines recommendations governments may wish to consider
- » Finally, we offer conclusions

3. Material climate change risk developments for public authorities since 2019

Climate change risks which face public authorities have become more pronounced since our 2019 paper. Below we highlight a few of the more significant developments in physical, transition and liability risk since 2019. In *Figure 1* below, we provide an overview of significant policy events raising the importance of climate related financial risks within Australia.

Physical risk: Climate science developments

In August 2021, the IPCC Working Group I, covering the physical science of climate change, published the first contribution to the IPCC's *Sixth Assessment Report*. The report highlighted that atmospheric carbon dioxide concentrations were higher in 2021 than at any time in the last two million years.¹ The report highlighted that emissions growth had rebounded after a momentary dip because of the COVID-19 pandemic and its associated economic impacts.²

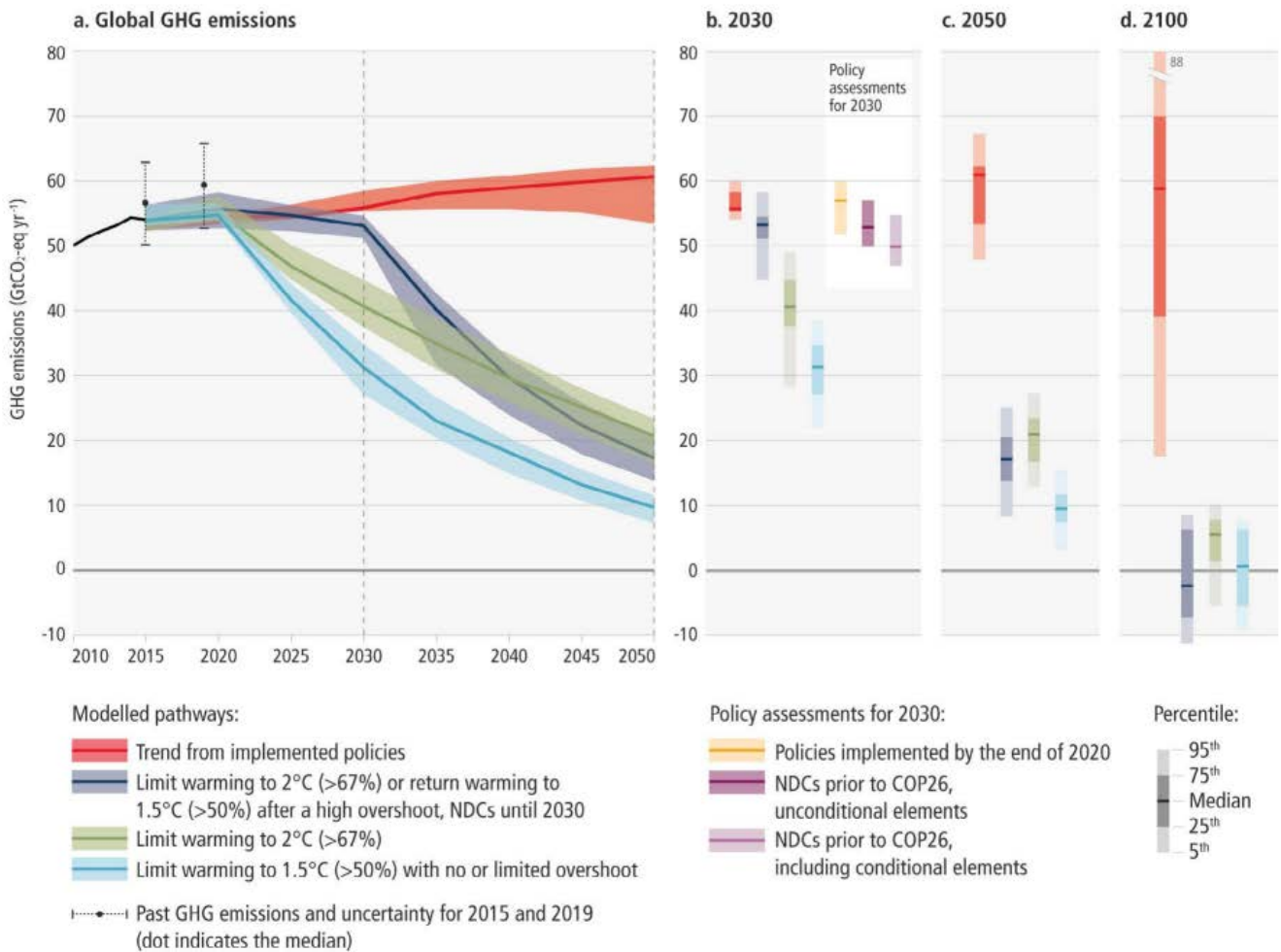
It further indicated that the physical effects of climate change appear to be increasing exponentially. For example, the observed rate of ice sheet loss increased by a factor of four between the periods of 1992-1999 and 2010-2019.³ Furthermore, the IPCC report notes that physical risks are overlapping and feed back on each other, creating compounding impacts.⁴ The broader consequence of these effects is that extreme weather events, such as heatwaves, heavy rainfall, cyclones, droughts and fire, will likely be more prevalent, leading to more variable rainfall and river flows and more drought-affected regions. Notably for Australia, the intensity, frequency and duration of fire weather events are projected to increase throughout the country, and heavy rainfall and river floods are projected to increase.⁵

At the same time, global action to curb emissions growth is still falling short. The IPCC Working Group III report on mitigation shows that in order to stay below 2°C of warming by the middle of the century countries must reduce emissions to 2030, after which emissions must drop precipitously. Policies in Australia and globally do not yet match this pathway. Emissions projected under the latest national emissions targets (Nationally Determined Contributions, NDCs) which were released before the last climate summit in Glasgow in November 2021, would lead to warming of ~3.2°C by the end of the century. As a consequence, Australia and other countries face the likelihood of physical climate risks increasing over time.



Figure 1: IPCC projected global emissions based on latest NDCs²¹

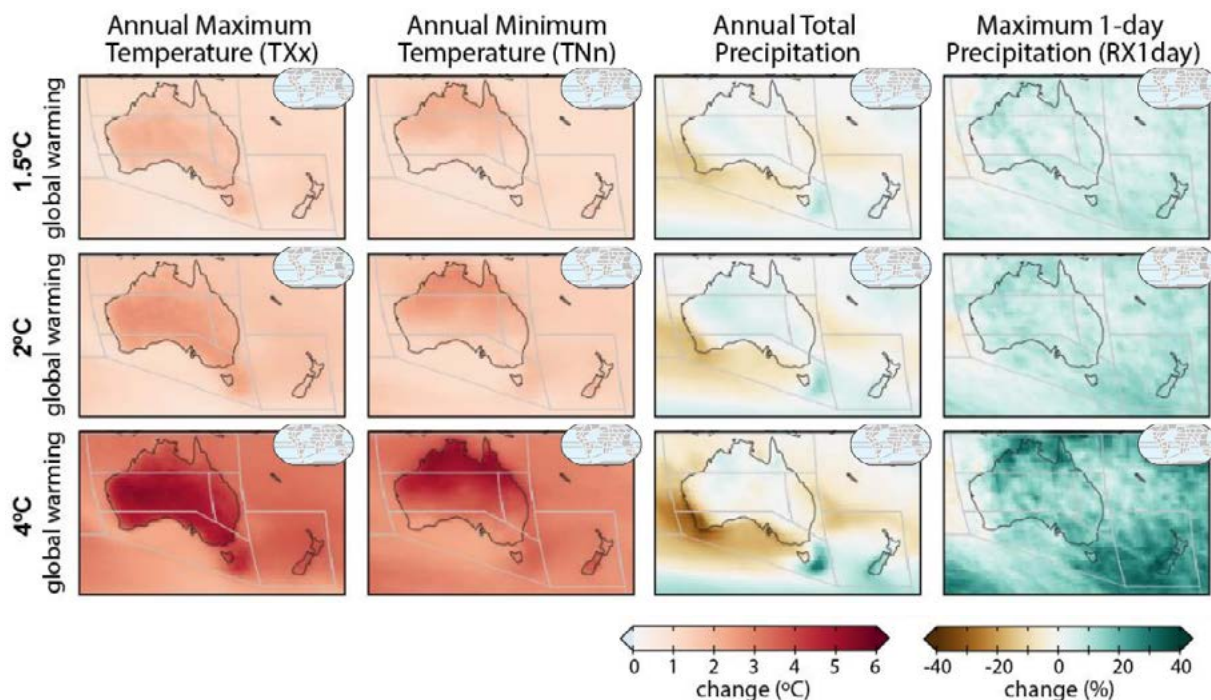
Projected global GHG emissions from NDCs announced prior to COP26 would make it likely that warming will exceed 1.5°C and also make it harder after 2030 to limit warming to below 2°C.



Physical climate risks are already having a significant impact on Australia and this is likely to continue to increase - see *Figure 2*. Australian land areas warmed by around 1.4°C between 1910 and 2020. Already heightened temperatures extremes are projected to increase further, exacerbating associated hazards. For example, the frequency of extreme fire weather days in Australia has increased, and the intensity, frequency and duration of fire weather events are

also projected to rise nationally.⁶ These hazards matter for public authorities, particularly those whose assets are highly exposed to climate physical risks. This includes water authorities, which may face risks associated with reduced water supply, and owners of real estate assets which are vulnerable to damage caused by cyclones, fires, and floods.

Figure 2: IPCC physical impacts to Australia under projections of 1.5°C, 2°C, and 4°C global warming⁷



Transition risks

Since 2019, policy and market transitions have also continued to increase the risks faced by public authorities. Mounting physical risks have driven costs higher for Australian households, businesses, and governments. For example, insurance premiums in some parts of Australia have increased due to severe weather events. Recent research highlights the likelihood of further rapid premium increases.⁸ As we discuss below, some public authorities are also anticipating changes in consumer behaviour and demand for services as a result of climate change. Global transition developments are also creating significant transition risks within Australia. Some nations and regions plan to implement policies to address climate change, which may involve mechanisms that introduce a price on carbon emissions. Such mechanisms will likely impact Australian exports.⁹ Notably, since 2019, the EU has taken additional steps towards introducing border carbon

adjustments, legislating a carbon price to be imposed on the embedded emissions of imports.¹⁰ This development does not significantly affect Australia’s exports at present, as it covers a relatively insignificant spread of aluminium and steel. However, it stands to become more influential as the scheme expands to cover more of Australia’s export products, and as more countries, including the US, UK, and Japan, consider similar mechanisms.¹¹ This could have particular transition risk implications for public authorities that support export industries in energy and agriculture.

A more significant near-term transition risk for public authorities is the transition of trading partners away from Australia’s fossil fuel energy exports. Most of Australia’s main trading partners have committed to net zero, including its largest fossil fuel customer, Japan.¹² One notable development since our 2019 paper is the emergence of several high profile energy transition models which have laid out the transition pathways needed to achieve

the Paris Agreement goals. Notably, the International Energy Agency’s (IEA) Net Zero by 2050 scenario¹³ implies significant policy and market changes across sectors, including in energy sectors to which Australia is exposed.

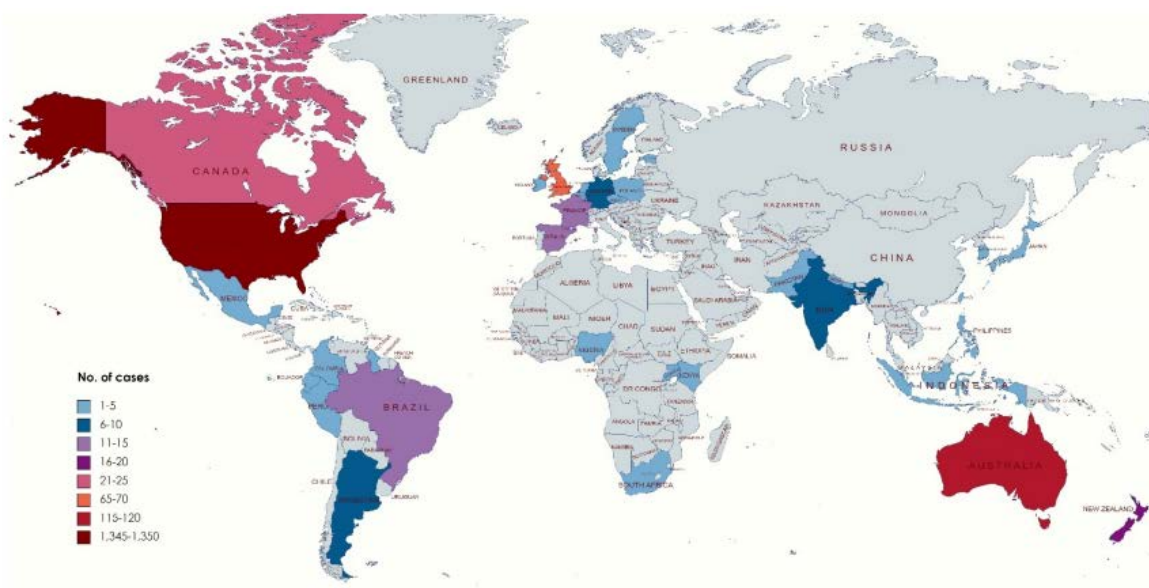
Public authorities also face a range of indirect risks associated with changes in the sovereign financing landscape. Since 2019, there has been a large uptake of net zero commitments by the asset management industry. Just under half of the global assets managed by asset managers have committed to align their portfolios with achieving net zero emissions by 2050. This group includes major sovereign investors, who have indirectly financed authorities in Australia by providing debt to governments. Several major investors, including Robeco and the Swedish Central Bank, are divesting from sovereign bonds in direct response to low confidence in public management of climate risks and perceived high exposure to such risks. Former RBA Deputy Governor Guy Debelle has suggested that there may be additional future divestment decisions such as these.¹⁴ Credit ratings agencies are increasingly interested in the role of governments and government-owned entities and are providing more granular information to the market on progress or lack thereof.

Liability risks

Liability risks of public authorities associated with mismanaging climate risks continue to rise.¹⁵ The 2021 Hutley-Hartford-Davis legal opinion recommended directors of public authorities critically engage with the implications of climate risks to meet the standard of care and diligence already expected of them.¹⁶ At the same time, novel litigation is being brought against public decision-makers in several jurisdictions. Australia is a favoured test jurisdiction because of the availability of strategic litigation funding, alongside several legal enabling conditions, including specialist environmental courts, favourable class-action rules, and a substantial fossil fuel sector.¹⁷

Historically, Australia has had one of the highest numbers of climate cases advanced globally, with cases commenced against both public authorities and private sector actors. One hundred and fifteen climate cases were commenced in Australia between 1985 and 2021, placing it only behind the United States, where more than 1300 cases were commenced during the same period. See *Figure 3* below.

Figure 3: Cumulative number of climate-related cases around the world, per jurisdiction, to May 2021¹⁸



In Australia, many cases have been advanced against governments. The following may be particularly relevant to public authorities:

- » In May 2021, the Federal Court of Australia held that the Minister for the Environment owes Australian children a novel duty of care when considering whether to approve a licence for the extraction of thermal coal under the *Environment Protection and Biodiversity Protection Act (Cth)* (EPBC Act).¹⁹ The Minister subsequently granted approval for the proposed mine expansion, in September 2021. The May 2021 decision was overturned by the full Federal Court in March 2022
- » In August 2021, the Land and Environment Court of NSW²⁰ held that the EPA's statutory obligation "to develop environmental quality objectives, guidelines and policies" to ensure the protection of the environment under the *Protection of the Environment Administration Act 1991 (NSW)* necessarily required the development of such instruments on climate change. The court issued a mandamus compelling the regulator to discharge the duty, although finding that it remained within the EPA's discretion to determine the way in which the duty should be discharged (including the substance of the relevant climate objectives, guidelines and policies)
- » At the time of writing, a case continues in the Federal Court in which the applicant claims that the Commonwealth engaged in conduct that was misleading or deceptive contrary to section 12DA(1) of the *Australian Securities and Investments Commission Act 2001 (Cth)*. It is alleged that the Commonwealth failed to disclose material financial risks associated with climate change in the disclosure documents associated with a sovereign bond issue. The Commonwealth brought a strike-out application which was declined by the Court with respect to the 12DA(1) claims in October 2021.

Litigation and legal precedents are only one form of liability risk relevant to public authorities. Public authorities face risks from regulatory and oversight bodies evaluating the extent to which they are managing climate related risks. For instance, as we discuss further below, some state audit bodies are increasingly focusing on whether public authorities are managing the financial implications of climate change as part of their mandate.

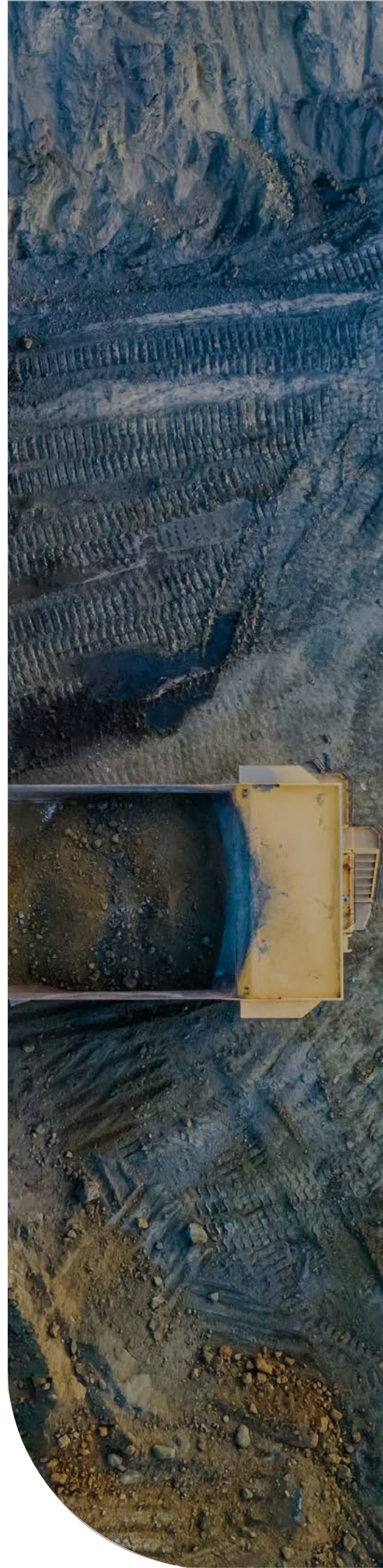
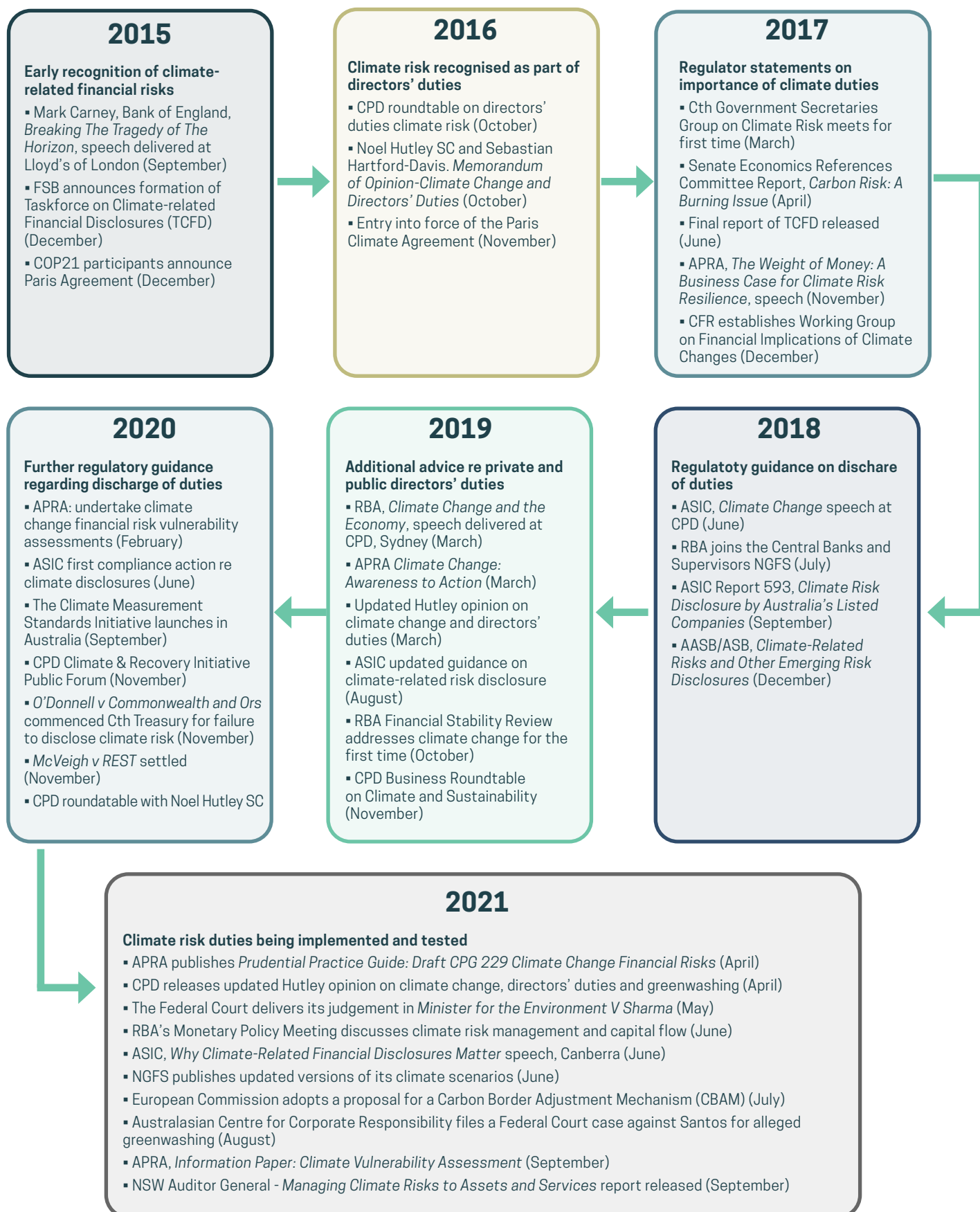


Figure 4: Summary of key policy steps taken in Australia to recognise climate-related financial risks since 2015



4. Definition of ‘public authority’ in this update

Commonwealth, state, and territory laws each define what they mean by a “public authority” differently. See *Appendix 2* for details. For the purposes of this report, we consider a “public authority” to be a corporate entity which is owned (wholly or partially) by an Australian government and/or established under statute. We distinguished these corporate entities to non-corporate public entities, such as government departments.

For the purpose of this paper, we categorise entities into three broad subgroups:

1. **Public statutory authorities**, which tend to be formed under a specific statute and do not necessarily have a commercial purpose. This includes bodies which are responsible for managing alpine regions, or which provide research and development support to a sector.
2. **Government or state-owned corporations (GOCs)**, which are usually established to deliver a commercial or semi-commercial purpose, such as generating and distributing electricity. These entities are usually established through specific legislation and a government-owned or state-owned corporations act, which sets general standards for these firms. For example, in NSW the predominant method of establishing GOCs is through separate acts for each sector and a GOC Act. The *Forestry Act 2012* (NSW) establishes the Forestry Corporation of NSW, which is also regulated by the *State-Owned Corporations Act 1989* (NSW). Often, such corporations will also be regulated by the *Corporations Act 2001* (Cth) to some extent, and/or be subject to state corporate governance legislation that substantively mirrors the requirements set out under that Act.
3. **Corporations Act 2001 (Cth) companies**, which are owned in whole or in part by a government. These entities are usually established for commercial purposes, such as providing a good or service to the government. They are subject to regulatory conditions under the *Corporations Act*.

The next section of this paper summarises the legal duties of individuals who are directors of entities in NSW, QLD and WA that fall within the second category above – government-owned corporations (GOCs).



5. Scope and nature of duty on GOCs to consider climate change risks in NSW, WA, and QLD

In this section we consider whether, subject to the establishing legislation and to ministerial directions that may apply to a public authority, directors of GOCs in NSW, QLD and WA owe a duty of care to consider climate risks which is at least as stringent, or perhaps more stringent, than that which exists for directors of private corporations. While this section addresses statutory duties, we consider that substantially similar duties exist at common law and equity. As noted above, in this section we limit our analysis to GOCs but include an overview of the law governing other public authority types in [Appendix 1](#).

Scope of the duty

The relevant statutes in NSW, WA and QLD each include provisions relevant to the duties of directors. In New South Wales, the *State-Owned Corporations Act 1989* (NSW) imposes the following obligation on directors (emphasis added): “In the exercise of powers and the discharge of functions, an officer of a statutory SOC must exercise the **degree of care and diligence that a reasonable person in a like position in a statutory SOC would exercise in the statutory SOC’s circumstances**.”²²

In Western Australia, the *Statutory Corporations (Liability of Directors) Act 1996* (WA) states (emphasis added): “A director must at all times **exercise the degree of care and diligence** in the performance of the functions of his or her office, whether within or outside the State, **that a reasonable person in that position would reasonably be expected to exercise** in the corporation’s circumstances.”²³

In Queensland, the *Government Owned Corporations Act 1993* (Qld) does not impose an additional duty of due care and diligence upon directors of its GOCs. However, the Act expressly contemplates that civil claims may be brought under the *Corporations Act 2001* (Cth) against public directors who breach their ordinary duties of due care and diligence. Specifically, sections 76 and 77 acknowledge

that the *Corporations Act 2001* (Cth) applies to GOC directors and that a GOC is not an “exempt public authority”.

While the content of the public entity duties will be informed, particularised and supplemented by the entity’s constituting legislation (amongst other obligations), at a general level the content of the obligations under the *State Owned Corporations Act 1989* (NSW) and the *Statutory Corporations (Liability of Directors) Act 1996* (WA) are substantively comparable, and in the case of the *Government Owned Corporations Act 1993* (Qld) identical to, that applying to directors of privately held companies subject to section 180(1) of the *Corporations Act 2001* (Cth).²⁴

CPD-released Hutley-Hartford-Davis legal opinions explain that the physical and transition risks associated with climate change are reasonably foreseeable today. As such, these climate change risks are likely to fall within the scope of considerations that a director should consider to meet the “care and diligence” standard expected of directors of companies registered under the *Corporations Act 2001* (Cth).²⁵ Indeed, the 2021 Hutley-Hartford-Davis Opinion opined explicitly that the growing expectations of corporate directors to manage climate change risks “apply equally” to public authority directors.²⁶

It follows that directors of GOCs in NSW, WA and Qld are required to meet the same “care and diligence” standard applicable to directors of *Corporations Act 2001* (Cth) companies, with respect to their obligation to consider the risks associated with climate change.

On one view, the conclusions expressed in the 2019 paper and the 2021 Hutley-Hartford-Davis Opinion are likely to apply *a fortiori* (that is, more strongly) to public authority directors for several reasons.

First, public authority directors do not enjoy the benefit of any “business judgment rule” defence provided for by statute. By contrast, private sector directors may benefit from the application of section

180 (2) of the *Corporations Act* which, in general terms, provides a defence to breach of the duty of due care and diligence for business decisions that were made in good faith and for proper purposes without material personal interest.

Second, climate change is not simply foreseeable but also presents material and significant risks for a range of public authorities. For example, the updated *Climate Risk Technical Bulletin* (March 2021) issued by the Sustainability Accounting Standards Board (SASB) identified that climate change-related risks are likely to be material for 69 out of 77 industry sectors. Many of these sectors – such as electric and water utilities and services, forestry management and infrastructure – correspond with the nature of services provided by public authorities.

Third, in some jurisdictions the public nature of these firms imparts additional obligations on directors. For instance, in NSW the *Government Sector Employment Act 2013* (NSW) outlines the broad values in accordance with which public entity decision-making should take place. These values suggest that public entities may have a greater obligation to proactively consider and manage climate risk. For instance, the “Government sector core values” in section 7 of the *Government Sector Employment Act 2013* (NSW) establish that public officials in NSW ought to be “fiscally responsible and focus on efficient, effective and prudent use of resources”.²⁷ Another government sector core value provides that public officials should “provide transparency to enable public scrutiny”.²⁸ As we discuss later, there are now several well-used and freely available frameworks for considering and managing climate risk in a transparent manner, and a prudent approach in the public context may now require the use of such tools.

Reflecting the increasing understanding of this obligation, some public authorities, and the states that manage them, are introducing processes for assessing and managing such risks. We discuss these further below.

Nature of the duty

As articulated in the 2019 paper, particular considerations apply to public authority directors in the exercise of their duty of due care and diligence. Directors are required to discharge their duties in a multi-layered and complex regulatory environment. Directors must comply with obligations arising under any relevant GOC Act, the authority’s founding statute, ministerial statements of obligation, and/or any relevant ministerial directions. Directors must also fulfil their duties requiring due care, skill and diligence.²⁹ What will be relevant to a court’s determination of the proper discharge of a directors’ duty of care and diligence is the extent to which an opportunity or risk is foreseeable to the authority or its business model.³⁰

Government-owned corporations are also subject to unique monitoring and reporting requirements. For example, the *Government Owned Corporations Act 1993* (Qld) states that: “Government monitoring of the GOC is intended to compensate for the absence of the wide range of monitoring to which listed corporations are subject by, for example, the share market and Commonwealth regulatory agencies”.³¹ The annual reporting requirements for GOCs under the Act are silent on climate risk, which mean that a risk management framework and/or a ministerial direction may be required to encourage consistent reporting across government-owned firms.³²

Due to the complexity of the regulatory environment, many public authority directors may lack clarity as to how they fulfil their climate risk duties. As GOCs answer to supervising ministers (who represent, in effect, the GOC’s shareholder and exercise key monitoring functions) it is important that ministers provide clear expectations to GOC directors regarding how climate risks should be meaningfully addressed, accounted for and managed.

6. Steps taken by governments to manage climate change risks since 2019

Some governments have taken specific steps to encourage their entities to account for, manage and report climate risks. Below we provide a summary of steps taken by specific government entities since 2019 based on publicly available documents.³³

The Commonwealth³⁴

The Commonwealth Government has taken several steps to understand and manage its public sector exposure to physical and transition climate risks. Since the change of government in 2022, the Treasurer and Climate Change Minister have signalled an intent to introduce mandatory climate risk disclosure requirements, and this will almost certainly impact public sector governance too.

The primary mechanism by which the Commonwealth currently manages such risks is through an interdepartmental group – the Disaster and Climate Resilience Reference Group (Reference Group) – established in 2015. The Reference Group is co-chaired by the Department of the Environment and Energy, and the Department of Home Affairs, and 22 Commonwealth agencies are represented at the deputy or first assistant secretary level.³⁵

The Reference Group supported the Australian Secretaries Board – the service-wide governance body for the Australian Public Service (APS) – to circulate a direction statement informing the service about the importance of managing climate and disaster risk.³⁶ The statement explained that the obligations for the APS were analogous to the requirements that apply to private sector corporate directors. Relevantly, the statement noted: “A failure to adequately consider climate and disaster risks could have serious reputation impacts for agencies and government, such as if a major piece of infrastructure fails in extreme weather.”³⁷

In addition, a number of frameworks are available to senior APS decision-makers to help them to account

for climate risks in their decision-making. For instance, the Australian Government’s 2021 *National Climate Resilience and Adaptation Strategy* reiterates the need for climate risks to be integrated into decision-making.³⁸ The Reference Group has also produced some risk management tools for departments, such as Climate Compass, which is a “framework designed to help Australian public servants manage the risks from the changing climate to policies, programs and asset management”.³⁹ Also, in July 2021, Infrastructure Australia published a technical guide for assessing infrastructure investments, which includes considering climate risks.⁴⁰

Victoria

The Victorian Government has taken a systemic and place-based approach to managing climate change risk. First, Victoria’s 2021 *Climate Change Strategy* notes that one of the state’s priorities to 2025 is to “ensure climate change risks are accounted for in financial decisions, products and services”, including among state government bodies.⁴¹

Further, under the *Climate Change Act 2017* (Vic), government departments are required to conduct system-based adaptation planning from 2021, with a focus on systems that are vulnerable to climate change or are essential to the state.⁴² These Adaptation Action Plans (AAP) consider climate risks and have been prepared to address areas including built environment; education and training; health and human services; natural environment; primary production; transport; and the water cycle.

And finally, the Victorian Managed Insurance Agency has published advice for senior managers on their obligations and an approach to manage climate change risks.⁴³ We understand further whole-of-government approaches may be under development. In anticipation of such plans, specific sector guidance for managing climate risks has emerged.

This includes:

- » **Water:** In June 2019, the Victorian Government produced guidance for Board Members and Executives of Water Corporations and Catchment Management Authorities on managing climate change risk.⁴⁴ The Victorian Department of Environment, Land, Water and Planning (DELWP) produced its first legislated Water Cycle AAP under the *Climate Change Act 2017*, which will be implemented between 2022 and 2026.⁴⁵
- » **Alpine areas:** The Victorian Alpine Resorts Coordinating Council (a government agency) has been highly active in responding to climate change risks. In 2017, the council published its own climate change vulnerability assessment report.⁴⁶ The Council also produced the *Alpine Resorts Strategic Plan 2020 - 2025* in 2019, which established two key climate initiatives for the council to pursue.⁴⁷ First, the council plans to develop an alpine resorts climate change risk disclosure and scenario analysis framework. Second, the council plans to publish climate risk disclosure statements and model reports.
- » **Health:** Department of Health and Human Services developed a health and human services AAP which provides a framework for how to manage climate risks which impact the health sector.⁴⁸

New South Wales

The New South Wales Government aims to approach climate risk in a coordinated manner through its NSW Treasury (Treasury) and specifically the Office of Energy and Climate Change (OECC).⁴⁹ Treasury established an interagency Climate Risk Steering Group in mid-2019 to coordinate this activity and guide the provision of support for government entities in managing climate risks.

Treasury has primary responsibility for risk management across the public sector, including for public authorities. Treasury has recently updated

several policies to require agencies to consider climate change risks in the context of broader risk management.⁵⁰ Considerations in connection to climate change risk have been addressed in TPP17-10, which requires GOCs to recognise and manage environmental risks.

Further, GOCs are captured by NSW guidance for the climate-related matters to be included in financial statements. In March 2021, NSW Treasury produced guidance for government reporting entities about how to reflect the effects of climate-related matters in financial statements. However, findings of a performance audit carried out by the NSW Auditor General criticised the implementation of some of these measures at the entity level.⁵¹ The audit report stated that “guidance to State Owned Corporations, which are major infrastructure holders and service providers, does not mention climate change, and these agencies are not covered by the TPP20-08 or TPP19-07 [which are the policy documents relating to carrying out internal risk audits and reporting in financial statements for GOCs].”

The NSW Government has announced additional steps it plans to take to manage climate risk in its public authorities. In October 2021, the government made a further announcement about its Net Zero Plan, committing to state-level climate risk disclosure and piloting entity-specific TCFD reporting statements for the National Parks and Wildlife Service, Environment Protection Authority and Essential Energy (a state-owned corporation).⁵² The Government also committed to developing and publishing a biennial climate change impacts, risks, and adaptation statement.

In addition to its risk management activities, OECC has also been developing resources to support government entities to understand and manage climate risks. NSW Treasury published a *Climate Risk Ready NSW Guide* (CRR Guide) in March 2021.⁵³ The CRR Guide offers a four-step process to conduct or revise climate change risk assessments, focusing particularly on physical risks.⁵⁴ OECC has developed

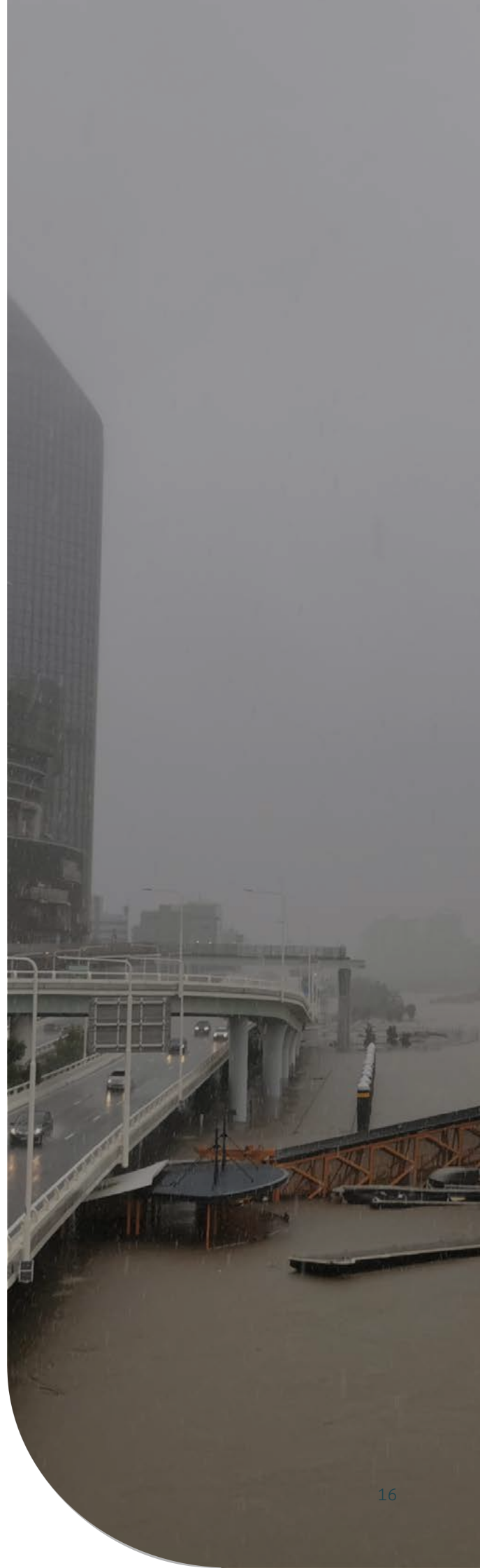
an accredited training that commenced in February 2021 with funded places for 100 priority agency staff. NSW has also developed the NSW and ACT Regional Climate Modelling (NARClIM) project which delivers information on physical climate projections and possible climate change impacts to assist local government, business, and the community to build physical resilience to and minimise the impacts of climate change⁵⁵

While the measures discussed above primarily focus on managing physical risks, the NSW government has also taken steps to better understand its transition risk exposure. Specifically, Treasury has carried out a sensitivity analysis of the broader NSW economy in view of the changes happening in the energy sector because of climate change.⁵⁶

Queensland

The Queensland government is developing a whole-of-government approach to assessing and managing climate change risk in public authorities. In 2020, the Government launched Queensland Climate Ready, a two-year program designed to strengthen institutional climate change risk management within the Queensland Government.⁵⁷ The program supports the implementation of the government-wide adaptation action plan, which aims for a whole-of-government climate change risk management approach to policies and processes, investments, services, and actions.⁵⁸

To help government officials assess physical climate risks, the Queensland Government has developed the Queensland Future Climate Dashboard. The dashboard provides public officials with easy access to climate change risk projections, including heatwave and rainfall information for Queensland.⁵⁹ The dashboard allows users to explore, visualise and download recent high-resolution climate modelling data for specific regions, catchments, disaster areas, local government areas and grid squares. In addition, in 2019, the Queensland State Heatwave Risk Assessment was published.⁶⁰ It features long-term climate change heatwave projections as part of its analysis of future climate risks in Queensland.



Guidance is also available to officials to assist in the management of climate change risks. The Queensland Audit Office published an advice in 2019 recommending that public service agencies report climate change risks in their financial statements.⁶¹ The *Financial Reporting Requirements for Queensland Government Agencies* (published in 2021) also requires agencies to consider climate change risks in their financial reporting.⁶² The requirements set out how risks should be reported, but do not provide details on how risks should be assessed or managed.

Western Australia

The Western Australian Government has communicated that it intends to take a whole-of-government approach to managing climate risk.

The Western Australian Climate Change Policy (produced by the Department of Water and Environmental Regulation in 2020) sets out the state's response to climate change and its risks.⁶³ As a part of this policy, the WA Government states that the government and its agencies plan to show "leadership" in relation to managing and reporting on climate change risks. The government has committed to "implement[ing] a framework to monitor, assess and report on implications of climate change on the State's finances, infrastructure, physical assets and service delivery."⁶⁴

We understand efforts have commenced in relation to government climate risk management, but are not yet implemented. At the time of finalising this report, the government had published a whole of government climate change risk management guide for the public sector.⁶⁵

International action

Internationally, there is a strengthening focus on the role of GOCs in addressing and accounting for climate change risks, and increased awareness regarding how such risks may impact governments as a consequence of improper management.⁶⁶ For instance, the Coalition of Finance Ministers for Climate Action (which is a group of Finance Ministries from the UK, US, New Zealand and others that shares experiences and best practices, as well as collaborating on strategies to integrate climate change in economic and financial policies) highlights the important role that governments can play in relation to GOCs.⁶⁷

Several emerging initiatives designed to improve the climate change risk assessment and management processes of public authorities are underway. For instance, the Climate Disclosure Project – a global non-government organisation that has pioneered climate risk reporting by private corporations – is working with the New York State Energy Research and Development Authority (NYSERDA) to develop a consistent framework for climate risk reporting among public authorities in the state which the platform can use to allow consistent disclosure of climate risks by these bodies.⁶⁸

Some governments are also proactively providing for climate risk management by GOCs into their overarching climate change legal frameworks. For example, the recently passed Climate Change Law in Fiji includes detailed provisions imposing climate risk assessment and reporting obligations on certain public authorities, including GOCs.⁶⁹ See also, a case study below relating to California's *Climate-Related Risk Disclosure Advisory Body Report*.

CASE STUDY

STATE OF CALIFORNIA
CLIMATE RISK ADVISORY
BODY REPORT

In 2020, the state of California's Governor, Gavin Newsom, established the Climate-Related Risk Disclosure Advisory Group to build the state's capability to assess and manage climate change risk.⁷⁰ Californian government institutions play several roles in the state's economy, including as steward of assets, and a procurer and provider of goods and services. In 2021, the advisory group published a report in which it considers how the state should better understand and manage climate change risk in relation to two of its roles: as an investor and purchaser.⁷¹

The report considers how the state generally should manage and disclose climate change risk, taking account of its unique public nature. For instance, the report recommends that new disclosure standards be developed, which align with and support broader state climate strategies.

In relation to the state's role as a procurer of goods and services, the report recommends the state develop a classification system for making procurement decisions, prioritising suppliers that have adequate climate change risk management and disclosure mechanisms in place. The state should also provide support to suppliers to be able to make such disclosures. Specifically, the report calls for the state to:

- » require relevant transacting counterparties to provide a TCFD-based corporate disclosure document and surpass minimum climate standards
- » require bidding counterparties to disclose relevant project-level physical and transition climate change risk, using state-prescribed methodologies aligned with emerging best practices, and
- » further expand state provision of physical and transition climate change risk data, specifying scenarios to be used for consistent analytics and disclosure⁷²

In relation to the state's role as an investor, the report recommends that California use its position at the top of the capital supply chain to require as much climate-relevant information available to the market as possible. Specifically, the advisory group recommends that state asset owners:

- » disclose their boards' and organisations' processes, policies, and capabilities to manage climate change risk, including verification and accountability measures for climate-related data
- » use scenario analysis to assess physical and transition risks in portfolios, disclose the methodologies used, and the actual and potential climate-related impacts on their fund's strategy and financial planning over the short, medium, and long term, and issue credible transition plans
- » disclose methods of identification, assessment and management of climate-related risks, including physical risk management and engagement with third parties, and
- » disclose metrics for physical and transition risk, offsets, green and transition finance, and social equity, and targets for emissions and investment in green and transition finance⁷³

7. Disclosure of climate change risks by GOCs in 2020

Having assessed the legal position with respect to public authority directors' duties and climate change risk, and the policy steps that are being taken to support implementation, this section provides an analysis of the extent to which select public authorities in Australia are reporting climate change risks in their publicly available documents. We analyse the language of annual reports of select public authorities during the 2019-2020 financial year. The data in this section was compiled and analysed in September 2021 and includes all Australian states and the Commonwealth Government. In [Appendix 2](#), we discuss methods used for the analysis and its limitations.

Analysis of annual reports

Our analysis shows that many public authorities are discussing climate change in their annual reports. See *Figure 5* below. In many cases, these are general statements about the significance of climate change, or its broad impact on the sector in which the public authority operates. For example, Wine Australia, a Commonwealth public authority which is responsible for financing wine research and development, discusses the extent to which climate change has impacted the sector and refers to tools and approaches which could be used to assist the sector manage climate change.⁷⁴

However, the number of authorities that discuss climate change related financial risks is more limited. In *Figure 5* we differentiate between entities that discuss climate change in their reports, and those which specifically report on climate-related financial risks. With some exceptions, we identified limited reporting on climate-related financial risks in the annual reports we reviewed. The exceptions tend to be in specific sectors and states. For instance, there are several entities in the water sector in Victoria which report on climate-related financial risks. We discuss why that may be the case further below.

The data presented here cannot explain why there is low reporting of climate related risks.⁷⁵ We acknowledge that regulatory and reporting standards or frameworks for climate risks are continuing to evolve around the world, including for investor-owned companies. In some cases, this may be also because the entities do not consider climate change material for the reporting year. It may be that risks are reported in reports that are not annual reports, such as in sustainability reports or other risk management documents which may or may not be publicly available. It may also be because entities do not know how to report such risks, or that they do not have the tools to make such reports. To explore the authorities that are reporting on such risks, and to better understand their potential reasons for doing so, we consider the reporting behaviour of authorities within a single sector: water.

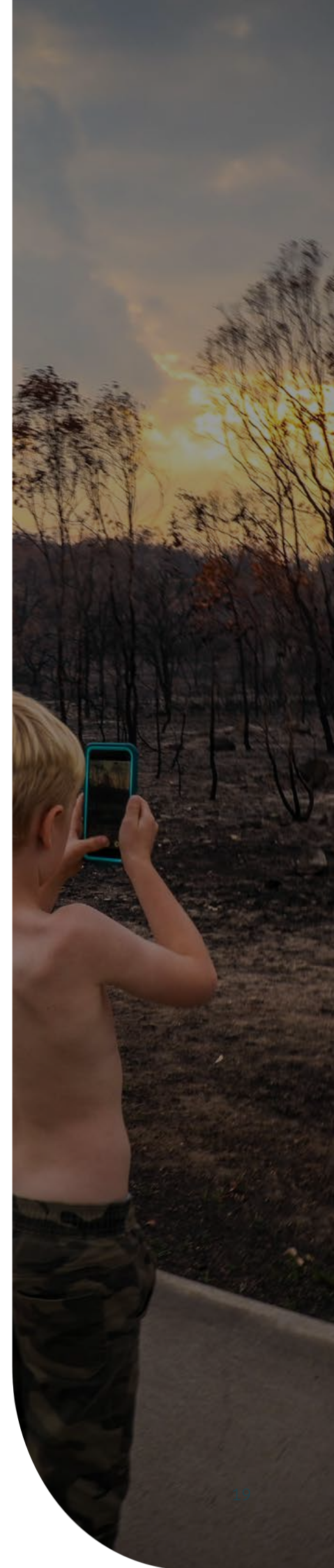
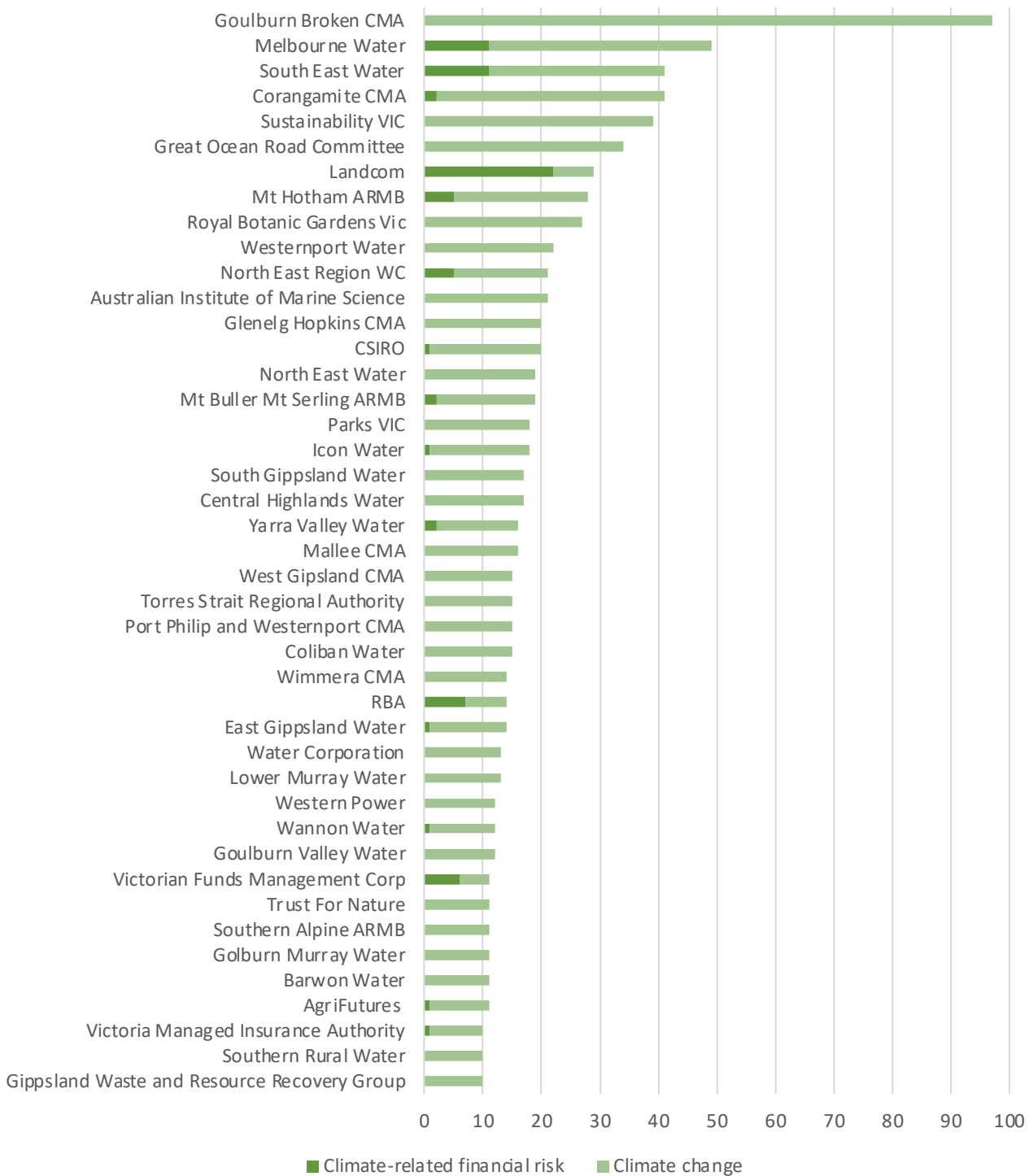


Figure 5: Frequency of climate change and climate change risk related terms in Australian public authority annual reports 2019-20



Case study: water sector

In addition to the analysis of annual reports, we also carried out a sectoral comparative analysis of water authorities across the country. We focused on large water utilities (those with more than 100,000 customers). We focus on water because it is still largely managed through public authorities across Australia. Also, it is one of the sectors which faces considerable climate change risk exposure already.

Table 1 below compares the large water utilities based on our review of publicly available documents. The table considers three categories indicative of strong climate risk management drawn from best practice climate risk management approaches. The first column in the table indicates whether climate change is recognised as a current and future challenge to the operations of the entity. The second column indicates whether climate-related risks facing the entity are clearly identified with key performance indicators (KPIs) articulated regarding how the entity manages these risks. Usually, KPIs like these are found in annual reports, climate change strategies, or enterprise risk management documents. They might include milestones or a strategy for managing such risks within the firm. The third column indicates whether climate-related financial risks for the relevant financial year are reported in the entity's annual reports. These would usually be reported alongside other financial risks to the entity.

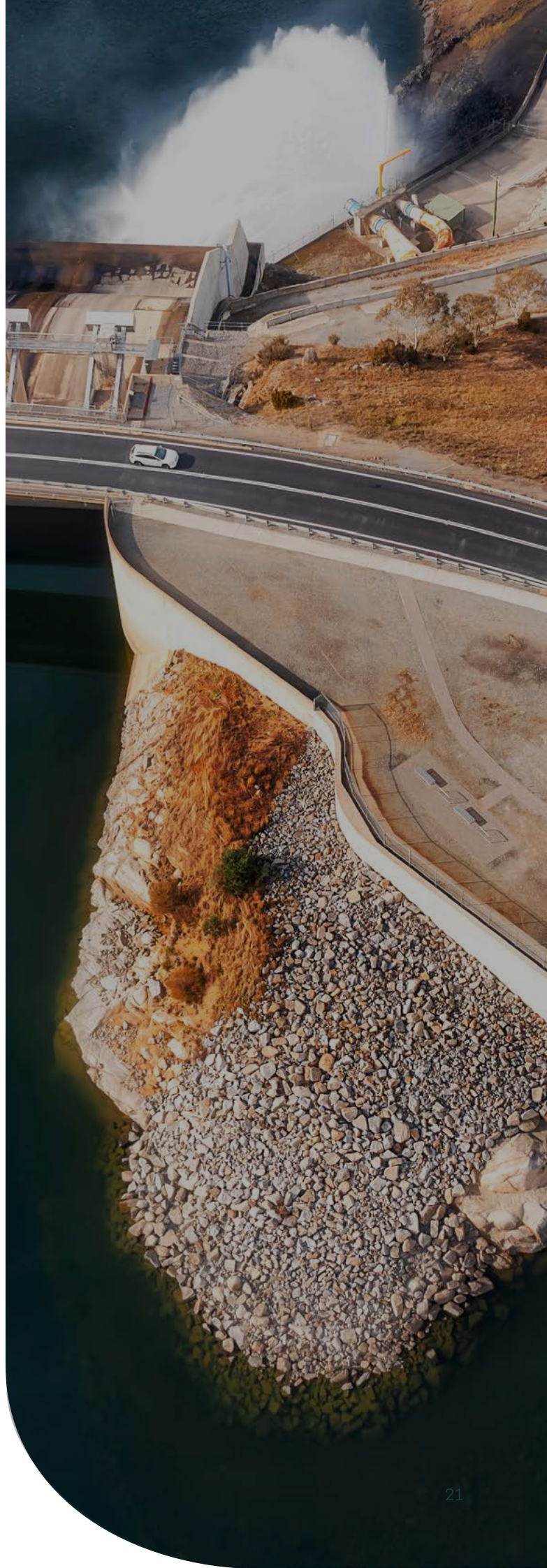


Table 1: Analysis of climate related financial risk disclosure at large water utilities in selected Australian jurisdictions, FY 2019-20⁷⁶

Entity name	Climate change recognized as future challenge to operations?	Climate change risk management KPIs articulated?	Climate-related financial risks disclosed?
NSW			
Hunter Water	✓	✗ ⁷⁷	✗
Sydney Water	✓	✗ ⁷⁸	Partial ⁷⁹
Water NSW	✓	✗	✗
Queensland			
Seqwater	✓	✓	✓
SA			
South Australian Water	✓	✗ ⁸⁰	✗
Victoria			
Melbourne Water	✓	✓	✓
Northeast Water	✓	✓	✗
Southeast Water	✓	✓	✗
Yarra Valley Water	✓	✗ ⁸¹	✓
WA			
Water Corporation	✓	✗	✗

The table highlights that there is broad recognition of climate change as a challenge for future operations at these public authorities. All the reviewed annual reports discuss the impact of climate change on the future operations of the utility, in at least general terms. Fewer utilities took the next step to identify the climate-related risks facing the entity and articulate key performance indicators in connection to management of these risks.

It is also noticeable that the climate risks disclosed by the utilities focused particularly on physical risks. That is, the utilities mostly reported on how physical changes to water flows may impact the entity's financial outcomes. There was less direct consideration of transition risks. Melbourne Water, however, did analyse transition risk in their annual

report and highlighted a modelling exercise it carried out to examine how climate change impacts water demand in different regions.

We also observed some variation between the approaches of various state governments. Victorian entities, in the main, performed well. The Victorian entities may have disclosed their climate-risk management approach more frequently because the government and responsible ministers have introduced reporting frameworks and/or provided clear directions to the GOCs requiring more detailed reporting of climate risks.⁸² Additionally, the Victorian Auditor General has planned an audit of the water sector in the state for climate risk disclosure in 2023, which could explain Victoria's more proactive approach.⁸³

8. Future policy response

We consider that many, if not all, Australian public authorities are legally obliged to understand and manage the foreseeable risks to their organisation which are associated with climate change. As discussed in the first section of this report, physical and transition climate risks are already significant and will continue to intensify.

For public authorities, the most significant oversight will come from the authority's shareholding minister. This contrasts with the scrutiny provided to private entities, who are likely to report to a range of different stakeholders.

Despite the growing risk environment, there is significant inconsistency in the way governments and their authorities are responding. Several governments have announced processes to manage climate change risk among their public authorities (QLD, WA, NSW and Vic). While these initial steps trend in the right direction, more could be done by governments. The climate change risk analysis and reporting measures in place at the state and Commonwealth level generally preference physical risks over transition risks, despite the fact that transition risks pose just as imminent a threat as physical risks for many public authorities.

Our data analysis of public authorities highlights that while public authorities in key climate exposed sectors understand that climate change will impact their operations, for the most part, they remain in the early stages of understanding and reporting the financial impact of such risks. There are six areas where governments can concentrate their future policy response to maximise the quality, effectiveness, and impact of climate change risk management in GOCs.

Set clear and transparent expectations through policy statements

The reality for many GOCs is that understanding the risks posed by climate change – both physical and transition risks – is not currently part of their core business.

Ministers and departments can address this by preparing a statement of expectations that public authorities should evaluate climate change risks and set climate-related goals (including mid-century emissions targets and interim targets – ie. 2030 targets – to achieve those longer-term goals). Such statements should prioritise systematic climate risk assessment, management, and reporting, ideally in a way that is consistent across the whole of government. By including such expectations in a formal ministerial statement when directors are appointed, ministers would clarify that these expectations are no different to the expectations that

GOCs must meet in relation to financial reporting or procurement decisions. Such ministerial statements may be supported by cascading clear expectations of government policy requirements on each agency including clearly outlining climate change reporting requirements for GOCs.

Standardise risk assessment frameworks

Beyond a statement of expectations, departments should develop policy frameworks to support directors. In recent years, a large body of practical guidance and direction has been established for directors of non-government firms. This includes requirements from regulators, guidelines from industry groups, international standards like the TCFD, and the development of clear expectations for directors on how to perform their role within the scope of their legal duties.⁸⁴ There is comparatively little guidance of this nature designed specifically for public authorities.

Governments may also wish to consider publishing standardised frameworks to assist directors in assessing and reporting on exposure to climate-related risks. There is no shortage of general frameworks being developed that could be adapted, particularly for the disclosure of financial risks. The Australian Accounting Standards Board (AASB) has endorsed TCFD adoption on a voluntary basis, and the International Sustainability Standards Board (ISSB) is developing a global baseline for reporting. What is missing is clear guidance to directors on the expectations of their government and shareholding minister.

At a sectoral level, some ministers have taken proactive steps to instruct public authorities to manage climate change risks, such as the water sector in Victoria, which we discussed above. Some governments have also produced detailed climate financial risk reporting standards (QLD and NSW), although these are not applied consistently across the state.

Centralised reporting and oversight

Apart from making sure climate risk reporting is *standardised*, there is also merit in having it *centralised*. Ideally, any risk and reporting frameworks would be created by the central agency – usually the Treasury or Finance Department – that sets other governance requirements for GOCs. Standardised reporting frameworks would allow aggregation across GOCs to get a picture of whole-of-government risk exposure. This aggregate perspective will be critical for ministers and cabinets to understand their jurisdiction’s total exposure, and would greatly improve strategic decision-making.

A whole-of-government picture only emerges after agencies have independently reported their risk exposure. As this paper makes clear, it is critical that the GOCs themselves conduct and report their own assessments of climate change-related risks. Climate change risk management and reporting is not something that should be entirely subsumed into a central function.

Creating a whole-of-government aggregate report of climate risks would also provide an incentive for the directors and management of GOCs to improve their practice – GOCs with less sophisticated (or less credible) responses to climate change risks will be able to see how their more sophisticated peers articulate risks and responses. Such consolidated reporting of climate risks does not yet exist in any Australian government; however we can see comparable examples in other areas of policy.

In service delivery, for example, the Productivity Commission publishes the annual *Report on Government Services* (also known as the “Blue Book”) which collates a range of performance measures across Australian governments. This transparency and comparability has an impact on both departmental leaders and ministers in that it provides benchmarks to meet or beat. Indeed, this has been a common approach in areas of Commonwealth-state cooperation: from determining

the National Efficient Price for government-funded hospital services, to building data benchmarking into Federal Financial Relations. The collection and centralised publication of data encourages governments and agencies to look to their peers to develop shared best practice.

Conduct audits of GOC risk reporting

Public authorities are not subject to the regulatory oversight of bodies like the Australian Securities and Investment Commission (ASIC) which encourages compliance from directors through the threat of investigation and sanction. In the context of GOCs, external oversight and review may be required to perform a similar role.

Governments can initiate their own inquiries and reviews to encourage entities to manage climate risks. Government audit offices – which determine their own agenda independently from legislators – can play a useful and separate role in this respect. In several states, auditors general have used their powers to carry out performance audits that interrogate approaches to climate risk among GOCs, particularly in NSW and Victoria. Auditors in other jurisdictions may elect to follow a similar approach. An oversight function of this nature would be most effective against a background of standardised risk assessment and reporting providing a framework against which to audit performance and compliance.

Invest in building capability and capacity

Governments should continue to pursue measures that support public authorities to develop the skills and capabilities needed to manage climate risk. A lack of technical skills, as well as a general deficit in the understanding of climate risk management among senior leaders, has become a significant bottleneck for the public sector.

Indeed, this concern goes beyond GOCs, and encompasses the entirety of government planning and response to climate risks. It is a critical competency that governments must strengthen across departments and other organisations. Particularly, it would be useful for the government to understand how exposure, risk,



and opportunity manifest at agency, cluster, cross-agency, and GOC levels. Government should ensure that directors are appointed to public authorities with requisite climate expertise to support management in setting emissions targets and managing climate risk. In addition, governments should support development of capability on existing boards with such skills.

Governments may also benefit from centralising their capability development efforts through the office of the public service commissioner, Secretaries Board, or other body that operates across the public and quasi-public sector. This central function would need to support each agency, GOC and other body with its specific climate risks and programs to ensure that they are fit for purpose.

We consider that it is important that the government embed operational responsibility within each agency as a locus for developing organisational competence. This could be a Chief Financial Officer, a Chief Sustainability Officer, company secretary, or some other corporate or operational leadership position. For example, in NSW, the CRR Guide recommends that a “Climate Risk Officer” is allocated independently or through an existing role to coordinate climate risk management improvements within an organisation. Boards should also include more individuals with deep climate change expertise to support strategic and operational decision-making.

The Commonwealth Government may also consider how it can scale up its international engagement on managing climate risk in the public sector. This would allow the Commonwealth to share and learn from international best practice. Actions might include joining the Coalition of Finance Ministers for Climate Action, discussed above.

Finally, it is important that GOCs have access to data to evaluate and manage climate risks. This will require investment at the GOC level to ensure they are capturing climate change data related to their operations, but also ensuring that adequate

information-sharing measures are in place between GOCs and different Australian government agencies (such as the Bureau of Meteorology and CSIRO).

Influence private sector take-up

Government-owned entities often play a unique role in delivering public goods in areas where only the government operates. This makes them quite different to non-government corporations. But it also means these entities are in a unique position to act as powerful examples that influence climate risk reporting across the whole economy. This is an opportunity for government institutions to take the lead, leapfrogging the private sector, and set a higher bar for climate risk management and reporting.

For instance, public authorities could set market-leading standards of disclosure or integrate other governance frameworks – such as procurement policies – into their climate risk management approach. Actions of this nature create influence both “inward” within the public sector and “outward” through the interaction of public authorities with private firms.

Government procurement accounts for more than 15 percent of Australia’s GDP. As a buyer, the public sector is at the end of long and complex supply chains. Public authorities are in a position to require specific levels of climate risk management, policy and reporting from suppliers where appropriate, and if relevant, support those suppliers with capacity-building. In this way, the public sector could become a leader, creating a ripple effect of better climate risk management across the economy. In addition, GOCs could serve as best practice examples of how to effectively introduce climate risk management and reporting systems at the firm level. With support from government, this could serve as a benchmark for the development and upskilling of the industry in which the GOC operates.

9. Conclusion

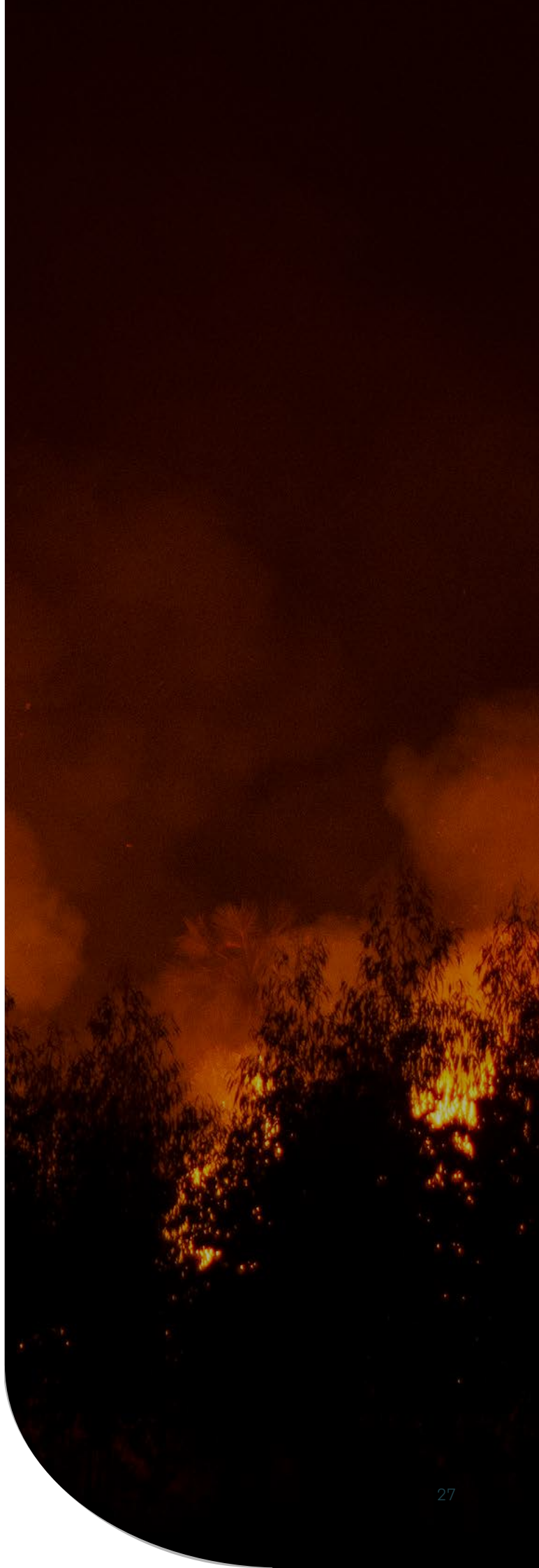
The last decade has seen significant change in the level and sophistication of climate change risk management expected from private corporations. This has been led, in large part, by investors who demand better disclosure. The public sector has been insulated from this trend – government-owned corporations are accountable to their minister, not to investors or financial markets.

In general, Australian government-owned corporations are falling behind their counterparts in the private sector when it comes to assessing, disclosing, and managing climate change risks. This has occurred despite the existence of notional duties for directors of public authorities that are as strong, or stronger, than those for directors in the private sector.

As more investors, companies, and governments take action to respond to climate change, we can expect growing scrutiny on public authorities to manage climate-related risks. These authorities include some of the most critical parts of our economy and society – utilities companies that provide essential water or electricity, or investment funds that support the retirement of public sector workers. All of these sectors are already being impacted by climate change.

Government-owned corporations are designed to operate at arm's length from government. However, governments set expectations, standards, and governance processes. As the ultimate stewards of public goods, it is especially important that public authorities and their government shareholders take a leadership position in managing climate-related risks.

With several Australian governments – both state and federal – now motivated to better understand and manage climate-related risks, there is an opportunity for the public sector to raise the bar and become leaders on climate change risk management and disclosure.



Appendix 1: Detailed legal analysis of public authority directors' duties in New South Wales, Queensland, and Western Australia

The following tables detail the obligations of directors of public authorities and departments in New South Wales, Queensland and Western Australia. Emphasis is placed upon the duty of care and diligence and its analogues. For each jurisdiction, both the relevant public service statute and the relevant state-owned corporation statute are analysed.

New South Wales - State Owned Corporations Act 1989 (NSW) (SOC Act)

Scope of duty	Subject of duty	Defences?	Justiciability and consequences
<p>Schedule 10 of the SOC Act details the duties of officers of state owned corporations (SOCs). Much like s 180(1) of the <i>Corporations Act 2001</i> (Cth), cl 3(3) of sch 10 states that an officer of a statutory SOC must:</p> <p>exercise the degree of care and diligence that a reasonable person in a like position in a statutory SOC would exercise in the statutory SOC's circumstances.</p> <p>Further, cl 3(9) provides that:</p> <p>In determining for the purposes of subclause (3) the degree of care and diligence that a reasonable person in a like position in a statutory SOC would exercise in the circumstances of the statutory SOC concerned, regard must be had to—</p> <p>(a) the fact that the person is an officer of a statutory SOC, and</p> <p>(b) the application of this Act to the SOC, and</p> <p>(c) relevant matters required or permitted to be done under this Act in relation to the SOC, including, for example, any relevant directions, notifications or approvals given to the SOC by the SOC's voting shareholders or portfolio Minister.</p> <p>The Act also establishes other duties for directors.</p> <p>The board of a SOC must prepare a statement of corporate intent (which must include certain matters) for voting shareholders annually (s 21).</p> <p>The board of a statutory SOC must also prepare an annual report (s 24A). The Minister is required to lay before parliament a copy of each SOC's statement of corporate intent and annual report (s 26).</p> <p>A portfolio minister, with approval of the Treasurer, may also direct a SOC to perform certain activities and the SOC must comply (s 20N, s 200 and s 20P).</p>	<p>The definition of 'officers' encompasses directors and CEOs of SOCs as well as others who are concerned with, or take part in, SOC management.</p> <p>Section 3 of the SOC Act defines a SOC as:</p> <p>a company for the time being specified in Schedule 1 or</p> <p>a corporation for the time being specified in Schedule 5.</p> <p>No companies are specified in schedule 1.</p> <p>Schedule 5 lists the following statutory SOCs:</p> <ul style="list-style-type: none"> ▪ Essential Energy ▪ Hunter Water Corporation ▪ Landcom ▪ Newcastle Port Corporation (trading as the Port Authority of NSW) ▪ Water NSW ▪ Sydney Water Corporation ▪ Forestry Corporation ▪ Transport Asset Holding Entity of New South Wales <p>Consequently, these statutory SOCs are the only entities to which the SOC Act applies.</p>	<p>Clause 10 of sch 10 empowers the Court to relieve from liability persons who may be liable for negligence, default or breach of duty. As subclause 10(2) states, the Court may exercise this power of relief if:</p> <p>the person has acted honestly and, having regard to all the circumstances of the case (including circumstances connected with the person's appointment) the person ought fairly to be excused for the negligence, default or breach</p> <p>In limited circumstances, a director of an SOC may also be exempt from personal liability in respect of particular obligations. This requires a director to be acting in good faith and to be either carrying out a public sector policy, complying with a public interest direction or supplying certain information (s 33AA).</p> <p>Moreover, s 33AA provides that regulations may amend or replace schedule 10. To date, no such regulations have been made.</p>	<p>The Attorney General is the only actor capable of bringing an action to enforce the duties within the SOC Act (sch 10 cl 9). The responsible ministers under the SOC Act are the Treasurer and the Premier, however they do not enforce statutory duties.</p> <p>Under cl 9(1), the Attorney General may apply to the Supreme Court or the District Court for an order. The maximum penalty for a breach of the duty of care and diligence contained in cl 3(3) of sch 10 is 100 penalty units.</p> <p>However, the SOC Act also contemplates civil claims being brought against SOC directors under the <i>Corporations Act 2001</i> (Cth).</p> <p>Clause 3(11) of sch 10 provides that:</p> <p>This clause—</p> <p>(a) is in addition to, and does not limit, any rule of law relating to the duty or liability of a person because of the person's office in relation to a corporation, and</p> <p>(b) does not prevent civil proceedings being instituted for a breach of the duty or the liability.</p>

New South Wales - Government Sector Employment Act 2013 (NSW)

Scope of duty	Subject of duty	Defences?	Justifiability and consequences
<p>There is no express duty of care or diligence, and no provisions relate to negligence.</p> <p>The heads of public service departments and agencies (including departmental secretaries) do not owe any express statutory duties under the Act.</p> <p>Though the 'Government sector core values' which address integrity, trust, service and accountability apply to SOC's (s 7).</p> <p>The Public Service Commissioner may also create obligations, as they are empowered to give a direction to a head of a government sector agency (including a head a SOC) on a specific matter in relation to the employees of that agency (s 13(1)). The head must then follow this direction (s 13(3)).</p> <p>The Public Service Commissioner also has an obligation to produce an annual report on the state of the government sector for the Premier which must be tabled in the Parliament (s 15).</p>	<p>The definition of 'government sector' encompasses SOC's (s 3). As a result, an SOC is a 'government sector agency' for the purposes of the Act (s 3). Accordingly, the core values (s 7) are applicable to SOC's.</p> <p>However, an SOC is not a 'public service agency' (s 3) and its members are not 'public service employees' (s 22).</p>	<p>Not applicable.</p>	<p>This Act is largely enforced by the Public Service Commissioner (ss 9 – 11). The Commissioner also sits on the Public Service Commission Advisory Board which determines the general policies and strategic directions in relation to the functions of the Commissioner (s 19).</p> <p>The Governor may also remove someone from a statutory office or from the position of director or CEO of a SOC without notice or stated reason (s 77).</p>

Queensland – Public Service Act 2008 (Qld), Public Sector Ethics Act 1994 (Qld), Public Sector Ethics Act 1994 (Qld) and Code of Conduct for the Queensland Public Service (2011)

Scope of duty	Subject of duty	Defences?	Justiciability and consequences
<p>There is no express duty of care or diligence, and no provisions relate to negligence.</p> <p>Though, under the <i>Public Service Act 2008</i> (Qld), a chief executive of a department must perform several functions which relate to, inter alia, complying with management and employment principles as well as relevant laws, directives and guidelines (s 99(1)).</p> <p>In addition, s 9 of the <i>Public Sector Ethics Act 1994</i> (Qld) details certain commitments and values which are relevant to the operation of GOCs:</p> <p>In recognition that public trust in public office requires high standards of public administration, public service agencies, public sector entities and public officials—</p> <ul style="list-style-type: none"> (a) are committed to exercising proper diligence, care and attention; and (b) are committed to using public resources in an effective and accountable way; and (c) are committed to managing information as openly as practicable within the legal framework; and (d) value and seek to achieve high standards of public administration; and (e) value and seek to innovate and continuously improve performance; and (f) value and seek to operate within a framework of mutual obligation and shared responsibility between public service agencies, public sector entities and public officials. 	<p>A chief executive of a department is defined to mean the 'person who holds appointment under this Act as the chief executive of that department' (s 10(1)).</p> <p>A public service officer means a chief executive, a senior executive or an officer of another type (s 8). A public service employee means a public service officer, general employee, fixed term temporary employee, or casual employee (s 9).</p> <p>However, none of these definitions encompass members or directors of GOCs.</p> <p>As a result, most of the responsibilities and duties in the <i>Public Service Act 2008</i> (Qld) do not apply to GOCs. For example, the management and employment principles do not apply.</p>	<p>Not applicable.</p> <p>However, it is notable that under the <i>Public Service Act 2008</i> (Qld), a 'State employee does not incur civil liability for engaging, or for the result of engaging, in conduct in an official capacity' (s 26C(1)).</p> <p>Chief executives of departments likely fall within the definition of 'State employee' (s 26B).</p>	<p>The responsible ministers are the Premier and the Minister for Trade and the responsible agency is the Public Service Commission.</p> <p>The <i>Public Service Act 2008</i> (Qld) does not provide what the consequences are for a breach of s 99(1) or who has authority to enforce the provision.</p> <p>A chief executive of a department may also suspend a public service officer from duty under certain circumstances (s 137(1)(a)).</p> <p>Public service employees may be disciplined in certain circumstances (s 187). Pursuant to s 187(1)(a), a ground for discipline is that the employee has:</p> <ul style="list-style-type: none"> [E]ngaged in repeated unsatisfactory performance or serious under performance of the employee's duties, including, for example, by performing duties carelessly, incompetently or inefficiently. <p>Decisions about senior officers are not exempt from challenge under the <i>Judicial Review Act 1991</i> (Qld) (s 218).</p> <p>Offences against the <i>Public Service Act 2008</i> (Qld) are summary offences (s 221).</p>

Queensland – Government Owned Corporations Act 1993 (Qld) (GOC ACT), Public Sector Ethics Act 1994 (Qld) and Code of Conduct for the Queensland Public Service (2011)

Scope of duty	Subject of duty	Defences?	Justiciability and consequences
<p>There is no express duty of care or diligence, and no provisions relate to negligence.</p> <p>Section 88 of the GOC Act explains that the role of a GOC board includes the following matters:</p> <ul style="list-style-type: none"> (a) responsibility for the GOC's commercial policy and management; (b) ensuring that, as far as possible, the GOC achieves, and acts in accordance with, its statement of corporate intent and carries out the objectives outlined in its statement of corporate intent; (c) accounting to the GOC's shareholders for its performance as required by this Act and other laws applying to the GOC; (d) ensuring that the GOC otherwise performs its functions in a proper, effective and efficient way. <p>The board of a GOC also has an obligation to provide notice to the shareholding ministers and Auditor-General if it expects that the GOC is, or will become, insolvent (s 125).</p> <p>The GOC minister may issue guidelines about the form and content of corporate plans and each GOC must comply with these guidelines (s 96).</p> <p>The board of a GOC must prepare a corporate plan (s 97) and an annual statement of corporate intent (s 102). Both documents must be agreed to with the relevant minister. The board of a GOC must also provide an annual report (s 120).</p>	<p>A GOC is a government entity that is established as a body corporate under an Act or the Corporations Act and is declared by regulation to be a GOC (s 6).</p> <p>Section 2 defines a board of a GOC to mean the GOC's board of directors. The <i>Government Owned Corporations Regulation (2014)</i> establish that the following exhaustive list of corporations are GOCs:</p> <ul style="list-style-type: none"> ▪ CleanCo Queensland Limited ACN 628 008 159 ▪ C S Energy Limited ACN 078 848 745 ▪ Energy Queensland Limited ACN 612 535 583 ▪ Far North Queensland Ports Corporation Limited ACN 131 836 014 ▪ Gladstone Ports Corporation Limited ACN 131 965 896 ▪ North Queensland Bulk Ports Corporation Limited ACN 136 880 218 ▪ Port of Townsville Limited ACN 130 077 673 ▪ QIC Limited ACN 130 539 123 ▪ Queensland Electricity Transmission Corporation Limited ACN 078 849 233 ▪ Stanwell Corporation Limited ACN 078 848 674 ▪ SunWater Limited ACN 131 034 985 	<p>None.</p>	<p>The Act is enforced by the minister (s 6). In this context, that is the Treasurer and Minister for Investment, and they sit within the Queensland Treasury.</p> <p>The GOC Act does not provide what the consequences are for a breach of ss 88 and 125 or who has authority to enforce those provisions.</p> <p>The provisions regarding notice of insolvency (s 125) apply in addition to those of the <i>Corporations Act 2001</i> (Cth) (s 125(7)–(8)).</p> <p>The GOC ACT also contemplates civil claims being brought against GOC directors under the <i>Corporations Act 2001</i> (Cth). Sections 76 and 77 acknowledge that the <i>Corporations Act</i> applies and that a GOC is not an exempt public authority.</p> <p>Section 123 provides that:</p> <ol style="list-style-type: none"> (1) In determining for the purposes of the <i>Corporations Act</i> the degree of care and diligence that a reasonable person in a like position in a GOC would exercise in the circumstances of the GOC concerned, regard must be had to— (a) the application of this Act to the GOC; and (b) relevant matters required or permitted to be done under this Act or another Act in relation to the GOC; including, for example— (c) any relevant community service obligations of the GOC; and (d) any relevant directions, notifications or approvals given to the GOC by the GOC's shareholding Ministers. <p>(2) This section has effect despite the <i>Corporations Act</i>.</p>

Western Australia – Public Sector Management Act 1994 (WA)

Scope of duty	Subject of duty	Defences?	Justiciability and consequences
<p>There is no express duty of care or diligence, and no provisions relate to negligence. However, chief executive officers and chief employees of departments and organisations are required to (s 30):</p> <ul style="list-style-type: none"> (a) endeavour to attain performance objectives agreed with the responsible authority of the department or organisation; and (b) comply with the Commissioner's instructions, public sector standards, codes of ethics and any relevant code of conduct; and (c) comply with the principles set out in sections 7, 8 and 9; and (d) comply with any binding award, order or industrial agreement under the Industrial Relations Act 1979 or employer-employee agreement under Part VID of the <i>Industrial Relations Act 1979</i>. 	<p>Section 3 states that chief employee means:</p> <ul style="list-style-type: none"> (a) a chief employee of a non-SES organisation; or (b) a chief employee of an agency who is not a member of the Senior Executive Service; or (c) a person deemed to be a chief employee under regulations referred to in section 4; <p>Chief employees of SOC's would likely fall within this definition and therefore be required to comply with the obligations in s.30. However, Schedule 1 has carveouts which make certain entities not 'organisations'. For example, the electricity corporations (see table below) are not 'organisations' and therefore the Act does not apply to them.</p>	<p>None.</p>	<p>The responsible ministers are the Minister for Public Sector Management and the Premier and the responsible agencies are the Department of the Premier and Cabinet and the Public Sector Commission.</p> <p>The Public Sector Commissioner exercises most of the powers under the Act (s 16).</p> <p>The Governor may, on the recommendation of the Commissioner, terminate the employment of a chief executive officer whose performance is substandard (s 79(5A)).</p> <p>An employee who commits a breach of discipline may be dismissed (s 88), this includes employees who are chief executive officers (s 89).</p>

Western Australia – Statutory Corporations (Liability of Directors) Act 1996 (WA)

Scope of duty	Subject of duty	Defences?	Justiciability and consequences
<p>Analogous to s 180(1) of the Corporations Act, s 10 of the Statutory Corporations (Liability of Directors) Act 1996 (WA) states that:</p> <p>A director must at all times exercise the degree of care and diligence in the performance of the functions of his or her office, whether within or outside the State, that a reasonable person in that position would reasonably be expected to exercise in the corporation's circumstances.</p>	<p>Director means (s 7):</p> <ul style="list-style-type: none"> a person who holds a position described in the second column of Schedule 1, and includes a person who, under a relevant Act mentioned in that Schedule or another written law, is acting in place of a director, whether the acting is — (a) expressed to be temporary; or (b) as a deputy, an alternate or a representative; or (c) in any other circumstances. <p>The relevant statutory corporations are listed in sch 1. They are as follows:</p> <ul style="list-style-type: none"> ▪ Chemistry Centre (WA) ▪ Country Housing Authority ▪ Forest Products Commission ▪ Fremantle Cemetery Board ▪ Fremantle Port Authority ▪ Government Employees Superannuation Board ▪ Insurance Commission of Western Australia ▪ Kimberley Ports Authority ▪ Lotteries Commission ▪ Metropolitan Cemeteries Board ▪ Metropolitan Redevelopment Authority ▪ Mid West Development Commission ▪ Mid West Ports Authority ▪ Perth Theatre Trust ▪ Pilbara Ports Authority ▪ Racing and Wagering Western Australia ▪ Rottneest Island Authority ▪ Southern Ports Authority ▪ State Government Insurance Corporation ▪ South West Development Commission ▪ Western Australian Coastal Shipping Commission ▪ Western Australian Land Authority ▪ Western Australian Land Information Authority ▪ Western Australian Meat Commission ▪ Western Australian Meat Industry Authority ▪ Western Australian Treasury Corporation <p>In addition to these corporations, the Electricity Corporations Act 2005 (WA) establishes three statutory corporations (s 4):</p> <ul style="list-style-type: none"> ▪ The Electricity Generation and Retail Corporation (trading as Synergy) ▪ The Electricity Networks Corporation (trading as Western Power) ▪ The Regional Power Corporation (trading as Horizon Power) 	<p>Section 20 provides that:</p> <p>For the purposes of section 5, 13 or 14, if it appears to the court that a person —</p> <ul style="list-style-type: none"> (a) is, or may be, liable under that section; and (b) has acted honestly; and (c) ought fairly to be excused having regard to all the circumstances of the case, including those connected with the person's appointment, the court may relieve the person either wholly or partly from liability on such terms as the court thinks fit. <p>Consequently, a director who contravenes s 10 may have relief from any order requiring them to compensate the company's loss suffered as a result of the director's breach. Moreover, such a director may have relief from a claim brought by the company because of their breach. A director who breached s 10 may also have relief from needing to pay a fine. This would turn on whether the duty in s 10 is interpreted to be a part of 'the fiduciary relationship with the corporation'.</p> <p>In addition, s 19 provides that:</p> <ul style="list-style-type: none"> (1) A director does not contravene section 5, 9 or 10 by doing or omitting to do any thing — (a) if that thing is done or omitted in compliance with a lawful direction given by a Minister in exercise of a power conferred by a written law; and (b) where the director was of the opinion that section 17(1)(a) applied to the direction, if he or she made reasonable efforts to cause the governing body to give notice to the Minister under that section. (2) Subsection (1) does not extend to the manner in which any thing is done or omitted if it is done or omitted in a manner that is contrary to section 9 or 10 and the direction did not require that it be done in that manner. 	<p>Directors of statutory corporations have the same directors' duties as directors under the Corporations Act (s 5).</p> <p>These duties are only enforceable by either the minister responsible for the Act under which the director holds their position, or the Attorney General (s 5(2)).</p> <p>The maximum penalty for a breach of s 10 is a \$5000 fine.</p> <p>However, if a breach of s 10 resulted in loss or damage to the corporation, the Court may also order the convicted director to pay compensation to the corporation (s 13).</p> <p>In addition, the corporation may pursue an action against a convicted director personally for their misconduct (s 14).</p>

Western Australia – *Electricity Corporations Act 2005* (WA)

(NB: There also organisations established under the *Water Corporations Act 1995* (WA))

Scope of duty	Subject of duty	Defences?	Justiciability and consequences
<p>The duties of directors are detailed in sch 2. Clause 3 provides that:</p> <p>A director of a corporation must at all times exercise the degree of care and diligence in the performance of his or her functions, whether within or outside the State, that a reasonable person in that position would reasonably be expected to exercise in the corporation's circumstances.</p> <p>Clause 6 of sch 2 establishes that directors owe the same fiduciary obligations as regular directors do under the <i>Corporations Act</i>.</p> <p>Clause 16 of sch 2 prohibits the provision of false or misleading information to the Treasurer or Minister.</p> <p>The boards of the corporations must prepare annual strategic development plans and statements of corporate intent which are agreed to with the Minister (ss 88, 97).</p> <p>The Minister may give directions to the corporations with respect to performance of their functions and the corporations must comply unless it is against their commercial interests (s 112).</p>	<p>The <i>Electricity Corporations Act 2005</i> (WA) establishes three body corporates (s 4):</p> <ul style="list-style-type: none"> ▪ The Electricity Generation and Retail Corporation (trading as Synergy) ▪ The Electricity Networks Corporation (trading as Western Power) ▪ The Regional Power Corporation (trading as Horizon Power) 	<p>Clause 9 of sch 2 provides that a court may relieve a director from liability incurred under sch 2 cl 3 if they acted honestly and ought fairly to be excused have regard to all the circumstances, including those connected with the persons' appointment.</p>	<p>The responsible minister is the Minister for Energy, and the responsible agency is Energy Policy WA. It is likely that the duties are only enforceable by the Minister for Energy (sch 2 cl 3(6)).</p> <p>A contravention of the duty of care in sch 2 cl 3 carries a penalty of \$5000.</p> <p>If a contravention of directors' duties is found, the court may also order the director to pay compensation for the harm caused (sch 2 cl 7).</p> <p>If a contravention of directors' duties is found, the company may also bring a civil claim (sch 2 cl 8).</p> <p>The Act does not specify whether the duties within the <i>Corporations Act</i> apply in addition to those detailed in the Act.</p>

Appendix 2: Research methodology

Definition of public authorities

State	Definition
Victoria	<ul style="list-style-type: none"> - The <i>Public Administration Act 2004</i> establishes a distinction between public service bodies (e.g., departments) and public entities. - Public entities can be divided further into incorporated and unincorporated (e.g., some alpine boards) public entities. They can be established through several legal mechanisms, including by their own statute, the <i>Corporations Act</i> or SOE Act. Incorporated public entities that have a more commercial objective tend to be regulated by the <i>State-Owned Enterprise Act</i> or the <i>Corporations Act</i>. - The Public Sector Commission also categorises the functions of public authorities, including stewardship (e.g., managing an asset like a water catchment), service delivery (e.g., providing health services), advisory and regulatory. - In this paper we are most interested in those incorporated public entities, and primarily on those which have a stewardship and service delivery function.
Commonwealth	<ul style="list-style-type: none"> - The <i>Public Governance, Performance and Accountability Act 2013</i> (PGPA) distinguishes between non-corporate Commonwealth entities (e.g., departments), corporate Commonwealth entities and Commonwealth company. - A corporate Commonwealth entity is an incorporated body that has a separate legal personality from the Commonwealth. Such bodies are usually established by statute. - A Commonwealth company is a company established under the <i>Corporations Act 2001</i> that the Commonwealth controls. It is legally separate from the Commonwealth. - The PGPA classifies advisory and regulatory bodies separately. - In this paper, we focus on corporate Commonwealth entities and Commonwealth companies.
NSW	<ul style="list-style-type: none"> - The <i>Government Sector Employment Act 2013</i> defines the government sector as including the public service (e.g., departments), the teaching service, police force, transport services, health services, other Crown services (e.g., TAFE) and state-owned corporations. In NSW, agencies which are separate from the public service, are called 'separate public service agencies', and include bodies such as the Environmental Protection Authority. - The NSW governments owns a number of incorporated government businesses, including state-owned corporations and public financial corporations. - In this paper we focus primarily on state-owned corporations.
WA	<ul style="list-style-type: none"> - The WA government is comprised of public sector bodies and other government bodies. The public sector comprises the public service (e.g., departments) and non public service bodies (e.g., Environmental Protection Authority). - Outside the public sector are other entities which operate with a large degree of independence from the government of the day. These include public universities, government trading enterprises and government boards and committees. - In this paper we focus primarily on the government trading enterprises.
QLD	<ul style="list-style-type: none"> - The government comprises of government entities which include departments and agencies, as well as incorporated bodies created under statute. Government-owned corporations are considered non-government entities. - In this paper we are most interested in statutory government authorities and government-owned corporations.

Approach for carrying out annual report analysis and its limitations

To evaluate the extent to which a public authority is considering climate change risks, we study annual reports for the 2019-20 year. At the time of writing these were the most available. We chose annual reports because this was a standard form document which is produced by entities across jurisdictions. Most often, such reports include financial reports within them. Thus, our assessment is that these are the most likely place where an entity discusses climate change risks, to the extent they are considering them. We recognise that some entities do produce separate sustainability reports,

To study the annual reports, we first developed a list of all the public authorities for each jurisdiction. Namely we selected:

- » Commonwealth: corporate Commonwealth entities and Commonwealth companies;
- » NSW: incorporated government businesses;
- » QLD: statutory government authorities and government-owned corporations;
- » Victoria: incorporated public entities;
- » WA: government trading enterprises.

For each relevant public authority, we downloaded its annual report.

We then used a set of natural language processing tools to assess the way that climate change is discussed in the reports. Specifically, we evaluated the way that all the reports discuss “climate change” and the text surrounding that term. We then selected word pairings which would proxy for

discussions on climate change risk. Specifically, we focused on “climate risk”, “climate change risk”, “climate related” and within five words, “climate” and “management” or “assessment”. These were words and phrases used in reports that discussed climate risk assessment and management processes. We then counted the references to these terms as a proxy for how much the report focuses on these issues.

We validated this method by reading some of the reports highlighted, and randomly checking those which were not highlighted. We note that there are some limitations to this approach. Some reports do not use the nomenclature of risk management, but they do discuss climate change extensively. To adjust for this, we have also highlighted reports that discuss “climate change”. The focus on climate change risk terms is an imperfect proxy. Some reports may talk discuss climate change without necessarily having taken steps to manage risks. As such, in our reporting we have distinguished between climate change risk terms and climate change. Also, some reports may not discuss climate change in the last reporting year, even if they are taking steps longer term. There was also five annual reports that were not available or text searchable.

ENDNOTES

- 1 IPCC, 2021: "Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change" [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, In press, doi:10.1017/9781009157896 (hereafter, "IPCC, AR6, WG1 Report"), 290.
- 2 IPCC, ARG, WG1 Report, 877.
- 3 IPCC, AR6, WG1 Report, 346-348.
- 4 IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press.
- 5 IPCC, AR6, WG1, Regional Factsheet – Australasia, available at: https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Australasia.pdf (hereafter, "IPCC, AR6 WG1, Regional Factsheet – Australasia").
- 6 IPCC, AR6 WG1, Regional Factsheet – Australasia.
- 7 Figure is taken from the IPCC Working Group 1 regional factsheet for Australasia, available here: https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Australasia.pdf. Underlying data and projections can be explored through IPCC WGI Interactive Atlas, available here: <https://interactive-atlas.ipcc.ch/>
- 8 ACCC, Northern Australia Insurance Inquiry, Nov 2020, available at: <https://www.accc.gov.au/system/files/Northern%20Australia%20Insurance%20Inquiry%20-%20Final%20Report%20-%2030%20November%202020.pdf>
- 9 Toby Phillips Chasing the pack: Australia's prospects on green trade and climate diplomacy, 2021, CPD discussion paper, Centre for Policy Development, available at <https://cpd.org.au/2021/02/discussion-paper-chasing-the-pack/>
- 10 European Commissions, Carbon Border Adjustment Mechanism, available at: https://ec.europa.eu/taxation_customs/green-taxation-0/carbon-border-adjustment-mechanism_en
- 11 AIG, Swings and Roundabouts: The unexpected effects of Carbon Border Adjustments on Australia, August 2021, available at: https://www.aigroup.com.au/globalassets/news/reports/2021/carbon_border_adjustments_policy_paper.pdf, 49, 51.
- 12 CPD, Climate Recovery Initiative, Discussion paper – Feb 2021, available at: <https://cpd.org.au/2021/02/discussion-paper-chasing-the-pack/>, 2, 12.
- 13 IEA, "Net Zero by 2050: A Roadmap for the Global Energy Sector" May 2021, available at: https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf
- 14 Guy Debelle, Climate Risks and the Australian Financial System, available at: <https://www.rba.gov.au/speeches/2021/sp-dg-2021-10-14.html>
- 15 NGFS, Climate-related litigation: Raising awareness about a growing source of risk, November 2021, available at: https://www.ngfs.net/sites/default/files/medias/documents/climate_related_litigation.pdf
- 16 Noel Hutley SC and Sebastian Hartford-Davis, 'Climate Change and Directors' Duties – Further Supplementary Memorandum of Opinion' (Centre for Policy Development, 23 April 2021), available at: <https://cpd.org.au/wp-content/uploads/2021/04/Further-Supplementary-Opinion-2021-3.pdf>, [12].
- 17 Christopher Niesche, "Climate Litigation Makes Its Mark in Australia. Law Firms Are Taking Note" (Law.com, 30 March 2022), available at: <https://www.law.com/international-edition/2022/03/30/climate-litigation-makes-its-mark-in-australia-law-firms-are-taking-note/?slreturn=20220529002957>.
- 18 Figure is taken from Joana Setzer and Catherine Higham, "Global trends in climate change litigation: 2021 snapshot" available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/07/Global-trends-in-climate-change-litigation_2021-snapshot.pdf (due to be updated in June 2022).
- 19 *Sharma by her litigation representative Sister Marie Brigid Arthur v Minister for the Environment* [2021] FCA 560. The Court declined to issue an injunction for an apprehended breach of the novel duty of care which would have had in effect prevented the Minister from approving the coal mine extension. The Court found the plaintiffs has not established that it was probable that the Minister would breach the duty of care in deciding whether to approve the extension project, accepting a well-informed Minister would take the duty of care into account. The Court acknowledge the plaintiffs would seek an injunction once the Minister made a proposed or final decision

in relation to the coal mine extension. In September 2021, the Minister for the Environment approved the extension to Whitehaven Coal's Vickery mine. To date, no injunction has been lodged. There are other similar cases underway at present. For example, in July 2021 the Environment Centre NT Inc also filed a claim in the Federal Court of Australia against Minister for Resources and Water, Keith Pitt, alleging he did not consider the potential risk to climate change or Australia's obligations under the Paris Agreement in his bid to expedite gas exploration in the Beetaloo Basin. The claim alleges that Mr Pitt failed to act in a way that was 'reasonable, rational and logical' in awarding three grants totaling \$21 million to energy company Imperial Oil and Gas, a subsidiary of Empire Energy, to support three new exploration wells. See Federal Court of Australia, *The Environment Centre NT Inc v Minister for Resources and Water & Ors* (2021) Commonwealth Courts Portal <<https://www.comcourts.gov.au/file/Federal/P/NSD758/2021/actions>>. In December 2021, the Federal Court found that the decision to award Imperial Oil & Gas with the three grants was invalid. The court also found that the Minister did not need to consider the risks of climate change when making a decision on the basis the project does not involve extensive gas extraction and production. However, the judgment leaves the door open for climate risks to be considered in other decisions concerning the use of public funds for fossil fuel projects.

- 20 *Bushfire Survivors for Climate Action Incorporated v Environment Protection Authority* [2021] NSWLEC 92 at [141].
- 21 Figure from IPCC AR6 WGIII Summary for Policymakers 2022, Figure SPM.4, SPM-18
- 22 *State-Owned Corporations Act 1989* (NSW) sch 10 cl 3(3).
- 23 *Statutory Corporations (Liability of Directors) Act 1996* (WA) s 10.
- 24 That provision provides that (our emphasis added): *A director or other officer of a corporation must exercise their powers and discharge their duties with the degree of care and diligence that a reasonable person would exercise if they: were a director or officer of a corporation in the corporation's circumstances; and occupied the office held by, and had the same responsibilities within the corporation as, the director or officer.*
- 25 Noel Hutley SC and Sebastian Hartford-Davis, 'Climate Change and Directors' Duties – Memorandum of Opinion' (Centre for Policy Development and the Future Business Council, 7 October 2016); Noel Hutley SC and Sebastian Hartford-Davis, 'Climate Change and Directors' Duties – Supplementary Memorandum of Opinion' (Centre for Policy Development, 26 March 2019); Noel Hutley SC and Sebastian Hartford-Davis, 'Climate Change and Directors' Duties – Further Supplementary Memorandum of Opinion' (Centre for Policy Development, 23 April 2021).
- 26 *Ibid* [12].
- 27 *Government Sector Employment Act 2013* (NSW) s 7.
- 28 *Ibid*.
- 29 The courts have emphasised that, regardless of the circumstances, directors must discharge certain minimum standards to satisfy their discharge of this duty. This minimum standard includes the proactive acquisition and maintenance of relevant knowledge (including making enquiries of management and/or independent experts where this is warranted), active monitoring of the corporation's affairs, and an independent and critical evaluation of the matters for which they are responsible – see generally *ASIC v Healy & Ors* [2011] FCA 717 (*Centro*).
- 30 When assessing the reasonableness of a public authority director's conduct the court will apply the *subjective* characterises of the director and the public entity to an *objective* assessment of whether the director has taken '*all reasonable steps to be in a position to guide and manage the company.*' – see *Centro*, [16], [143] and [162]. Note, however, that directors of some public authorities are protected by defences to breaches of their duties. For example, if a public authority director is complying with a ministerial direction or policy, they may be exempt from liability even if they did not exercise the expected level of care and diligence (e.g., see *State-Owned Corporations Act* (NSW) s 33A, *Statutory Corporations (Liability of Directors) Act 1996* (WA) s 19(1)(a)).
- 31 *Government Owned Corporations Act 1993* (Qld) s 16(c).
- 32 Although not specifically required, the Act is not intended to limit matters that may be required under other legislation. *Government Owned Corporations Act 1993* (Qld) s 120(2).
- 33 We note that at the time of writing several states and the Commonwealth were further developing their approach to climate risk, so it is possible that there have been developments between the time of drafting these sections and publication.
- 34 This update was written in April 2022, prior to the change in government at the Commonwealth level in May 2022.
- 35 Australian Senate (Foreign Affairs, Defence and Trade Committee), "Implications of climate change for Australia's national security", Chapter 6, available at: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Foreign_Affairs_Defence_and_Trade/Nationalsecurity/Final%20Report/cO6
- 36 Secretaries Board, "Australian Public Service responsibilities for managing climate and disaster risk", 6 November 2019, available at (Attachment A):<https://www.homeaffairs.gov.au/foi/files/2020/fa-200200593-document-released.PDF>
- 37 *Ibid*.

- 38 Australian Government, 'National Climate Resilience and Adaptation Strategy', available at <https://www.dcceew.gov.au/climate-change/policy/adaptation/strategy>
- 39 CSIRO, "Climate Compass: A climate risk management framework for Commonwealth agencies", available at <https://www.awe.gov.au/sites/default/files/documents/climate-compass-climate-risk-management-framework-commonwealth-agencies.pdf>.
- 40 Infrastructure Australia, "Guide to risk and uncertainty analysis", July 2021, available at: [https://www.infrastructureaustralia.gov.au/sites/default/files/2021-07/Assessment Framework 2021 Guide to risk and uncertainty analysis.pdf](https://www.infrastructureaustralia.gov.au/sites/default/files/2021-07/Assessment%20Framework%202021%20Guide%20to%20risk%20and%20uncertainty%20analysis.pdf)
- 41 Department of Environment, Land, Water and Planning (DELWP), "Victoria's Climate Change Strategy", available at <https://www.climatechange.vic.gov.au/victorias-climate-change-strategy>, 44,
- 42 *Climate Change Act 2017* (VIC), s34.
- 43 VMIA, "Understanding Victorian climate change risk management expectations", February 2021, available at: <https://www.vmia.vic.gov.au/tools-and-insights/climate-change/understanding-victorian-risk-management-expectations>
- 44 DELWP, 'Managing Climate Change Risk: Guidance for Board Members and Executives of Water Corporations and Catchment Management Authorities', available at https://www.delwp.vic.gov.au/_data/assets/pdf_file/0023/428054/ISBN-Managing-Climate-Change-Risk-Guidance-Water-Entities-20190702-02-.pdf
- 45 DELWP, 'Water Cycle Climate Change Adaptation Action Plan 2022-2026', available at: https://www.climatechange.vic.gov.au/_data/assets/pdf_file/0025/558421/WaterCycleAdaptationActionPlan.pdf
- 46 DELWP, "Alpine Resort Futures Vulnerability Assessment (Social and Economic)", August 2017, available at: https://www.forestsandreserves.vic.gov.au/_data/assets/pdf_file/0014/215141/Alpine-Resorts-Vulnerability-Assessment-FINAL_Report-Aug-17.pdf
- 47 DELWP, "Alpine Resorts Strategic Plan", May 2020, available at: <https://engage.vic.gov.au/alpine-resorts-strategic-plan>
- 48 Department of Health and Human Services, "Climate change adaptation and emissions reduction", available at: <https://www.health.vic.gov.au/environmental-health/climate-change-strategy>
- 49 As of the 1st April 2022, The Department of Planning and Environment (DPE) underwent a Machinery of Government change to become the Office for Energy and Climate Change. Some references in this section to OECC appear in underlying documents as the DPE.
- 50 See NSW Treasury's Internal Audit and Risk Management Policy (TPP20-08), Asset Management Policy (TPP19-07), Risk Management Toolkit (TPP12-03), and the Cost Benefit Analysis guidelines (TPP17-03) and see Guidelines for Boards of Government Businesses (TPP17-10) for State Owned Corporations
- 51 Audit Office of NSW, "Managing climate risks to assets and services", September 2021, available at: https://www.audit.nsw.gov.au/sites/default/files/documents/FINAL%20REPORT%20-%20Managing%20climate%20risks%20to%20assets%20and%20services_0.pdf
- 52 Department of Planning, Industry and Environment, "Net Zero Plan Stage 1: 2020-2030 Implementation Update", 2021, Available at: <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Climate-change/net-zero-plan-stage-1-2020-30-implementation-update-210460.pdf>, 5.
- 53 AdaptNSW, "How state government can adapt", available at: <https://climatechange.environment.nsw.gov.au/adapting-to-climate-change/climate-risk-ready-nsw>
- 54 At the time of writing, we understand the CRR was being updated for publication in late 2022.
- 55 AdaptNSW, "Climate change in my region", available at: <https://climatechange.environment.nsw.gov.au/Climate-projections-for-NSW>
- 56 Nick Wood, Maddy Beauman and Philip Adams (NSW Treasury), "The sensitivity of the NSW economic and fiscal outlook to global coal demand and the broader energy transition for the 2021 NSW Intergenerational Report" 2021 Intergenerational Report, Treasury Technical Research Paper Series, May 2021, available at: https://www.treasury.nsw.gov.au/sites/default/files/2021-05/2021_igr_ttrp_-_the_sensitivity_of_the_nsw_economic_and_fiscal_outlook_to_global_coal_demand_and_the_broader_energy_transition_for_the_2021_nsw_intergenerational_report.pdf
- 57 QLD Government, "Managing climate risk in government", available at: <https://www.qld.gov.au/environment/climate/climate-change/adapting/climate-risk>
- 58 QLD Government, "State of the Environment Report 2020", available at: <https://www.stateoftheenvironment.des.qld.gov.au/climate-change/management-responses/policy-and-programs/managing-climate-risk-actions-for-queensland-government>
- 59 QLD Government, "Queensland Future Climate Dashboard" available at: <https://longpaddock.qld.gov.au/qld-future-climate/dashboard/>
- 60 QLD Government, State Heatwave Risk Assessment, available at: <https://www.disaster.qld.gov.au/qermf/Pages/Assessment-and-plans.aspx>
- 61 QLD Audit Office, "Are climate-related risks impacting on your financial statements?", January 2020, available at: <https://www.qao.qld.gov.au/blog/are-climate-related-risks-impacting-your-financial-statements>
- 62 QLD Treasury, "Financial Reporting Requirements for Queensland Government Agencies (2020/21)", 2021, available at: <https://s3.treasury.qld.gov.au/files/FRR-1A-Introduction-and-Prescribed-Accounting-Standards-2020-21-1.pdf>, 16.
- 63 WA Government, "Western Australian Climate Policy", November 2020, available at: <https://www.wa.gov.au/service/environment/environment-information-services/western-australian-climate-change-policy>

- 64 Ibid, 27.
- 65 WA Government, WA climate change risk management guide (interim), available at: <https://www.wa.gov.au/government/publications/western-australian-climate-change-risk-management-guide-interim>
- 66 Arjuna Dibley, “Engaging Asia’s State-Owned Enterprises in the Climate Challenge”, Disruptive Asia Volume 4, 2021, available here: <https://disruptiveasia.asiasociety.org/engaging-asias-state-owned-enterprises-in-the-climate-challenge>. See also, Philippe Benoit, Alex Clark, Moritz Schwarz, and Arjuna Dibley.(2022), Decarbonization in state-owned power companies: Lessons from a comparative analysis, Journal of Cleaner Production, Volume 355, 2022, available at: <https://doi.org/10.1016/j.jclepro.2022.131796>.
- 67 The Coalition of Finance Ministers for Climate Action, “Climate-Related Risks for Ministries of Finance: An Overview” May 2021, available at: https://www.financeministersforclimate.org/sites/cape/files/inline-files/Climate-Related%20Risks%20for%20Ministries%20of%20Finance%20-%20An%20overview%20%28CFMCA%29_1.pdf, 10.
- 68 “CDP to collaborate with New York State to expand environmental disclosure for public authorities across North America”, available at: <https://www.cdp.net/en/articles/media/cdp-to-collaborate-with-new-york-state-to-expand-environmental-disclosure-for-public-authorities-across-north-america>
- 69 *Climate Change Act (No 43 of 2021)*, available at: https://www.economy.gov.fj/images/CCIC/uploads/Climatechangeact/20210927_161640.pdf, Part 5.
- 70 This group builds on a California Executive Order calling for the Department of Finance to collaborate with the state pensions to build a “Climate Investment Framework.”
- 71 Alicia Seiger and Kate Gordon, “Developing Climate Risk Disclosure Practices for the State of California”, California Climate-Related Risk Disclosure Advisory Group, 2021, available at: <https://law.stanford.edu/publications/developing-climate-risk-disclosure-practices-for-the-state-of-california/> (hereafter “Seiger & Gordon, *Developing Climate*”), 13.
- 72 Seiger & Gordon, *Developing Climate*, Chapter 3.
- 73 Seiger & Gordon, *Developing Climate*, Chapter 4.
- 74 Wine Australia, Annual Report 2020-21, available at: https://www.wineaustralia.com/getmedia/5062e402-706b-42a0-a05b-94aa9b136b22/WA_AnnualReport_2020-21.pdf, 34-36.
- 75 We invite researchers to carry out further work in this area.
- 76 Unless otherwise indicated, the information in this section is derived from the annual reports of FY 2019-20 for each entity. This was the relevant time period when the detailed analysis was carried out for this section of the report.
- 77 Although, it appears that these may be under development: <https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Other-Reports/Regulatory-Reports/Compliance-and-Performance-Report-2020-21.pdf>
- 78 Unclear. Sydney Water appears to have developed a Climate Adaptation Strategy several years ago: <https://www.sydneywater.com.au/content/dam/sydneywater/documents/climate-change-adaptation-32pp.pdf>. Also there are some clear areas of risk identified: <https://www.sydneywater.com.au/water-the-environment/what-we-are-doing/energy-management-climate-change.html> However, not able to find publicly disclosed KPIs.
- 79 Some financial risks are disclosed in the Annual Report. For example, the drivers of planned capital expenditure are noted to include “climate variability” (p.33). However, the impact of climate change is not systemically reported in the Report.
- 80 Not clear from public documents. The 2020-25 strategy notes that “Proactive environmental leadership” is a core part of the strategy, and that “climate change resilience” is part of that strategy. But no further details are included: https://www.sawater.com.au/_data/assets/pdf_file/0008/557216/Our-Strategy-2020-2025_Versioncontrol.pdf.
- 81 Appears to be under development in revised Climate Resilience Plan. See: https://media-2.yvw.com.au/inline-files/YVW_Annual%20Report_2021.pdf
- 82 The *Climate Change Act 2017* (Vic) sets the legislative framework to manage climate change risk and achieve net zero emissions by 2050. The government’s 2016 Water for Victoria strategic plan (the Plan) is the state’s climate change adaptation plan for the water sector. The Plan requires water authorities to achieve net zero emissions by 2050. Additionally, the Minister for Water issued a Statement of Obligations (Emission Reduction) in 2018 that requires water authorities to collectively reduce their emissions by 42 per cent before 1 July 2025.
- 83 Victorian Auditor General’s Office, Annual Plan 2021-22, available at: https://www.parliament.vic.gov.au/file_uploads/20210610-Annual-Plan_Ph55qVDN.pdf, 26.
- 84 For example, see Australian Prudential Regulatory Authority’s Climate Vulnerability Assessment (available at: <https://www.apra.gov.au/climate-vulnerability-assessment>), or the Australian Institute of Company Directors’ Climate Risk Governance Guide (available at: <https://aicd.companydirectors.com.au/advocacy/research/climate-risk-governanceguide>).



CREATE. CONNECT. CONVINCED.

Published by the Centre for Policy Development © Centre for Policy Development 2022.

This work is licensed under CC BY 4.0. To view this license, visit creativecommons.org/licenses/by/4.0/

Cite this paper as: Arjuna Dibley, Nick Young & Toby Phillips (2022) *Raising the bar: Managing climate change risk in public authorities*, CPD discussion paper, Centre for Policy Development.

CONNECT WITH US

-  @centrepolicydev
-  centrepolicydev
-  Centre for Policy Development
-  cpd.org.au

CONTACT

Melbourne
Level 16, 1 Nicholson Street,
East Melbourne VIC 3002
+61 3 9929 9915

Sydney
Level 5, 320 Pitt St,
Sydney NSW 2000
+61 2 8199 9407