Climate-related financial disclosure

Sydney Water Annual Report 2024-25

Sydney WATER

Water IS OUR LIFE

Acknowledgement of country

Sydney Water respectfully acknowledges the Traditional Custodians of the land and waters on which we work, live and learn. We pay respect to Elders past and present.

Basis of preparation

Compliance with NSW Treasury reporting requirements

This climate-related financial disclosure for 2024–25 for Sydney Water Corporation (Sydney Water) has been prepared in accordance with TPG24-33 'Reporting Framework for Climate-related Financial Disclosures' (TPG24-33) as issued by NSW Treasury.

The TPG24–33 reporting framework sets out the requirements for the first year of mandatory climate-related financial disclosures. TPG24–33 is mainly based on the Australian Accounting Standards Board's Australian Sustainability Reporting Standard (ASRS) – AASB S2 Climate-related Disclosures with some key modifications. These include a focus on qualitative and not quantitative information for first-year disclosures. There is also no requirement for the performance of a scenario analysis to assess climate resilience within the first year nor to provide comparatives. The full list of modifications is included within TPG24–33.

The TPG24–33 reporting framework applies in the 2024–25 financial year to those NSW Government agencies considered to be 'Group 1' entities which includes all state-owned corporations such as Sydney Water.

Relationship to the financial statements

These climate-related financial disclosures should be read in conjunction with Sydney Water's financial statements and Annual Report for the financial year ended 30 June 2025.

Materiality

Climate-related information is material if it can be reasonably expected to affect Sydney Water Corporation's prospects including its financial outlook and the ability to achieve its objectives. It is also material if omitting, misstating or obscuring that information could be expected to influence the decisions of the primary users of an entity's general purpose financial reports.

Disclaimer

These climate-related disclosures contain statements that are, or may be deemed to be, forward-looking statements, including Sydney Water Corporation's Net Zero Target. Forward-looking statements are not guarantees of future performance, and involve known and unknown risks, uncertainties, and other factors, many of which are beyond the control of Sydney Water Corporation. This may cause actual results or developments to differ materially from those expressed or implied in such statements. There are uncertainties, assumptions and judgments, underlying climate-related information that limit the extent to which climate-related information is useful for decision-making, and you are cautioned not to place undue reliance on the information in these disclosures. Forward looking statements in these disclosures, reflect Sydney Water Corporation's best estimates, assumptions and judgments as at the date of these disclosures, however, the uncertainty in climate-related information may lead to Sydney Water Corporation changing its views in the future.

Governance

Sydney Water's Audit and Risk Committee (ARC) is a board committee whose role includes assisting the Board in overseeing the effective implementation of our risk management framework. As part of this role, the ARC has the specific function to 'oversee the reporting of mandatory Sustainability and Climate Related disclosures, and climate and sustainability risks and opportunities. This function is reflected in the ARC Charter alongside its other functions and the principles for the operation of the Committee (G1a). In 2024–25 the ARC was informed specifically on climate-related risks and opportunities (including on our climate-related financial disclosures) through papers tabled at three out of their four meetings. This will continue next year with a target cadence of twice per year (G1c).

The Board has established a Nominations Committee which, among other things, has responsibility for ensuring the Board consists of Directors with the right mix of skills and experience, to allow the Board to discharge its responsibilities effectively. As part of this, the Nominations Committee has developed a skills matrix which, among other things, covers risk management, commercial/business leadership, strategy development, financial reporting, regulatory, environment, law, innovation and stakeholder engagement. Climate related risks and opportunities are embedded in these, and other skills, in the matrix. In addition, the Nominations Committee oversees continual professional development of Directors, to ensure that they gain and retain additional skills whilst on the Board, including those relating to climate related risks and opportunities (G1b).

The Board endorsed an update to Sydney Water's Strategy to align with our customer outcomes. This included updates to the strategic objectives, including targets for Net Zero Carbon Emissions and Climate Resilient Systems. The Board also approves our Long-Term Capital and Operating Plan (LTCOP) and Statement of Corporate Intent. These plans include many of the actions disclosed in the Climate-related risks and opportunities section (G1d).

The Investment Review Committee (IRC) (a sub-group of the Sydney Water Executive Management Team) reviews and endorses all business cases that are to be approved by the Managing Director or Board. Prior to any expenditure on an investment project, business cases are reviewed by the IRC. Multi-criteria analysis is conducted for all projects that include customer experience, safety, environmental (including climate change), or other non-financial benefits as a basis for its justification. (G1d).

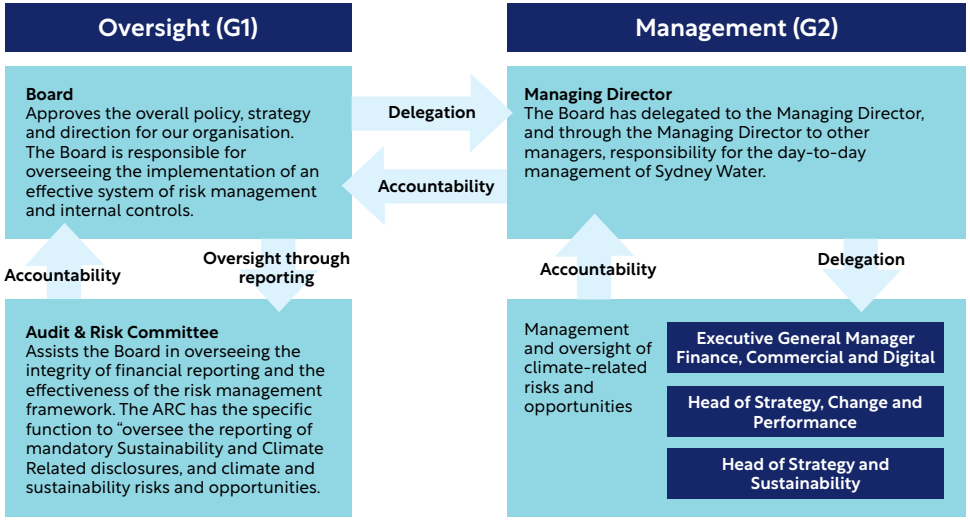

Figure 1 - Climate governance structure

In 2024–25 a new Climate Change specific Enterprise Risk was added to the top tier risks owned by the Sydney Water Executive and overseen by the ARC. Our Board and its Committees provide oversight of these risks to ensure they are managed in accordance with the Board defined risk appetite. Going forward the ARC will receive quarterly updates on Climate Change Enterprise Risk (G1c). The Executive General Manager of Finance, Commercial and Digital (EGM FCD) is the sponsor for this Enterprise Risk. (G1e, R1d)

Each year the Board approves our Statement of Corporate Intent (SCI) for submission to our Shareholding Ministers. The SCI and its business plan outline our objectives, main undertakings, and performance targets for the coming year. The Board receive updates on progress towards our Net Zero target quarterly and our Climate Maturity target annually as part of the Corporate Performance Report which is reviewed and discussed at each Board meeting (G1c, G1e).

Our Climate Risk Maturity and Net Zero Carbon programs are managed with steering committee oversight. The steering committees, executive sponsored by the EGM FCD, provide oversight and direction to Program Delivery Groups and Workstreams to ensure effective implementation of the programs (G2a).

Under the EGM FCD, the Head of Strategy and Sustainability has the accountability for leadership and governance for climate change adaptation and the Net Zero carbon programs and the policy ownership in relation to key strategic priorities identified under Sydney Water's Strategy. The Strategy and Sustainability team are the owners of two key documents used to support the oversight of climate-related risks and opportunities: the Climate Change Adaptation Position Statement and the Net Zero Directional Statement. These documents are outlined in Figure 2 (G2a).

Through our climate maturity programs we are working to better integrate climate related matters into our procedures, plans, and standard documents to progress our climate-related ambitions. (G2b).

Climate Change Adaptation Position Statement	Net Zero Directional Statement
Outlines our approach to climate adaptation and details specific responsibilities for implementation. • Commits that Sydney Water will plan and invest prudently to ensure we can maintain service levels by managing our climate risk • Formalises our approach and standard requirements for adaptation ensuring that decisions that we make will take future climate risks into account • Sydney Water uses a moderate emissions pathway (RCP 4.5 or equivalent) as the assumed baseline for our forward planning assumptions. A high emissions pathway is also used (RCP 8.5 or equivalent) to identify potential increased impacts	Directions set to consider the impact of carbon emissions and abatement in infrastructure project development and decision-making processes. • Applies to the capital infrastructure pipeline from the planning to the project delivery stage • Sets high-level directions that emphasise the importance of long-term investment decisions that consider carbon impact and abatement opportunities throughout the asset lifecycle • Integrates carbon reduction criteria into all phases of capital infrastructure projects, encouraging early application for better financial and sustainability outcomes

Figure 2 - Key oversight documents for climate-related risks and opportunities (G2b, R3)

Strategy and Risk Management

Climate risk methodology

In 2024–25 we conducted an Enterprise Climate Change Risk and Opportunity Assessment using our Risk Management Framework and Enterprise Risk Matrix to assess the nature, likelihood and magnitude of climate-related risks. The matrix provides qualitative and quantitative criteria to determine a risk rating. The risk levels are defined by the matrix and those areas found to have a very high or high risk rating are deemed to be undesirable and require prompt treatment (R1b).

Climate hazard data for our physical risk assessment was sourced from NARCliM 1.5 / 2.0 data taken from AdaptNSW, as well as information from Manly Hydraulics, Climate Futures, Australian Rainfall & Runoff guidelines and the Climate Council. The risk assessment presented assumes controls that are in place (funded or part of approved strategies) do not change from the current time (R1a).

Our transition risk assessment was done in consultation with relevant subject matter experts on each risk. Best knowledge and assumptions at the time of the assessment were used (R1a).

As a final step to identify which climate risks and opportunities were material for disclosure, we assessed the risks qualitatively as to their effect on our prospects (financial outlook and ability to achieve objectives) and importance to primary users' decision making.

We do not have an opportunities management framework for identifying, assessing, prioritising, and monitoring climate-related opportunities. We did however, identify potential opportunities and assessed them on materiality. We plan to mature the framework year on year and expand it to opportunities management in the future (R2).

Integrating and monitoring climate risks

Our Risk Management Framework outlines accountabilities and ownership for different kinds of risk. The Climate Change Adaptation Position Statement and Net Zero Directional Statement lay out guidance for climate-related risks (see Governance) (R3). Sydney Water's Risk Management Framework enables us to understand and navigate the risks we encounter while safeguarding the interests of our customers and shareholders. Applying this framework to climate risks ensures they are considered alongside other risks across Sydney Water. Climate risks are managed, assessed, and prioritised based on the same criteria as other types of risk (R1c). The area of the business that manages a change or a portfolio/program/project is responsible for initiating and maintaining the required risk management activities. This consists of conducting a suitable risk assessment, identifying appropriate risk treatment actions and the ongoing monitoring and review of the risks as required (R1d).

Defining our business model

Sydney Water's business model is to deliver essential water and water-related services to over five million people in Sydney, the Illawarra and the Blue Mountains. The key accountabilities of Sydney Water are listed in the Sydney Water Act 1994. The Act establishes three principal objectives: To protect public health; To protect the environment; To be a successful business.

The Act also sets up a legal framework, under which there are three key documents that direct Sydney Water - the Statement of Corporate Intent, the Operating Licence and the Customer Contract. The Operating Licence and Customer Contract outline requirements for the manner of service provision, efficiency and effectiveness. Our prices for regulated services are set by the Independent Pricing and Regulatory Tribunal (IPART) who also administer compliance with our Operating Licence. Given we are a regulated monopoly the best way to reflect climate-related risks and opportunities to our business model is to show how they relate to the objectives of the Act as reflected in the Operating Licence.

Time horizons (S4)

The time steps selected for our climate-related risk assessments reflect key planning horizons for the organisation aligning with our LTCOP, Enterprise Business Plan (Statement of Corporate Intent), IPART Price Determination, and Operating Licence renewal. Due to the differing nature of the transition and physical risks we face, the years used to assess each of these risks within the time steps are different.

	Short-term	Medium-term	Long-term
Physical	5 years	25 years	40+ years
Transition	1 year	10 years	25 years

Table 1 - Summary of time horizons for transition and physical risk assessment

Physical risks

The time steps for our physical risk assessment are based on time steps in available modelling data. By extending to 2065, we allow for better risk assessment considering the longevity of our assets and the decisions we make as a water utility.

- **Short-term (5 years)** – aligns to our regulatory price and operating licence cycles and year ahead delivery plans.
- **Medium-term (25 years)** – covers both our Enterprise Business Plan and Long-Term Capital Operational Plan implementation.
- **Long-term (40 years)** – aligns with the Greater Sydney Water Strategy, common planning assumptions, and time periods we will see outcomes of decisions. Many of our assets have an engineering design-life which exceeds this period.

Transition risks

The political, financial, and technological landscape for transition risk will change significantly and multiple times over the next 5, 10 and 25 years. As such the timeframes for our risk assessment are shorter than those for physical risk.

- **Short-term (1 year)** - reflective of the risks we are facing today in making decisions regarding the low carbon economy.
- **Medium-term (10 years)** – this timing sits between our Net Zero targets (2030 and 2040) and before the 2050 State and National regulatory deadlines allowing assessment of the risks at this interim stage. This also aligns to the horizon of our capital investment program (CIP and Statement of Corporate Intent).
- **Long-term (25 years)** - aligned to the current Net Zero target for NSW Government and Australian Government.

Climate-related risks and opportunities

The climate-related risks that could reasonably be expected to affect our prospects are summarised below and detailed with anticipated impacts and responses throughout this section. Risks were evaluated against a medium emissions scenario (RCP 4.5 or SSP2–4.5) with sensitivity considered for a low (RCP 2.6 or SSP 1–2.6) and high emissions scenario (RCP 8.5 or SSP5–8.5). This Enterprise Climate Change and Opportunity Risk Assessment has been reviewed by both the Sydney Water Executive and the Board Audit and Risk Committee as part of their roles in oversight and management of climate-related risks and opportunities (R1).

Physical Risks (S2)

These are risks resulting from a changing climate that are driven from events (e.g. storms, bushfire) or longer-term shifts (e.g. increased average temperature, sea level rise). Physical hazards such as bushfires, floods, heatwaves, rises in sea levels, storms, and drought all have the potential to disrupt our services.

Risk Category	Description
1. Source waters and demand	Source waters refers to the water resources used to supply water demands. Our ability to treat raw water, meet demands and manage storage are all affected by climate change. The source waters and demand risk has been broken into three sub-categories: product availability, product quality and changes in demand.
2. Assets and environment	Built assets (mechanical, electrical, telemetric and civil infrastructure) are key to our ability to supply water, wastewater and stormwater services and can be damaged in severe weather. We also have an obligation to minimise our impact to our natural environment in our operations. These elements of our work are already exposed to weather events and this section denotes how climate change will exacerbate these risks.
3. Risks we share	Sydney Water relies heavily on other parties, such as service providers for electricity, chemicals and telecommunications. Our systems are utilised by many parties outside of residences such as industry, emergency services and urban cooling/greening. The risks in this section relate to risks we share with other service providers and the community.

Table 2 - Material physical risk summary

Transition Risks (S2)

These are risks that arise from Sydney Water and the general community's transition to a lower-carbon economy. Transition risks include policy, legal or liability, technological, market and reputational risks.

Risk Category	Description
4. Market	This risk considers that as the economy becomes less carbon-intensive, the supply and demand for certain materials and products will change. These changing prices and availability of goods, services and materials could affect our ability to reduce our emissions or the cost to do so.
5. Technology Innovation	In delivering our services we have some reliance on high energy technologies. Continuing to be reliant on energy intensive technologies and processes poses a risk to our ability to achieve emissions targets.

Table 3 - Material transition risk summary

Every 5 years IPART sets the prices we charge for water, wastewater, recycled water, stormwater and other services. Resourcing for our capital and operational expenditure needs for the next five years is outlined in our Price Determination for 2025–30. Our plans include investment to ensure we maintain safe and reliable services now and into the future, deliver water services to support housing strategies, mitigate risks associated with single points of failure, and address climate change impacts through drought response and rainfall independent supply (outlined for each risk category in the next section) (S8).

As outlined in the following section, our responses to climate related risks and opportunities are likely to involve increased operating and capital expenditures. It is important to note that if these expenditures are deemed to be prudent and efficient by IPART then it is likely that these additional costs will be recovered through the regulatory pricing model with funding provided either by customers (through increased prices) and/or by shareholders.

The risk ratings presented across time horizons in the following tables are the "residual risk ratings", i.e., they are the risk ratings that have been determined after taking into consideration those controls that are part of investment plans that encompass the particular time horizons. Where there is no established investment plan that encompasses the particular time horizon the risk ratings are the 'inherent risk rating'.

Specifically, in relation to the material physical risks that follow, our IPART Price Determination sets out our investment plans that address the risk in the 0 – 5 year time horizon. The 5 – 25 year time horizon risks are addressed by the investment plans encapsulated in our Long Term Capital and Operating Plan (LTCOP), which outlines our key infrastructure and operational decisions to 2050. We acknowledge that the delivery of these investment plans is subject to external factors such as customer and community support, support of the NSW Government and the availability of sufficient funding through future regulatory submissions. As the LTCOP does not extend to the 25 – 40 year time horizon these risk ratings are inherent risk ratings.

Sydney water will continue to implement steps to avoid very high or extreme risks as they emerge in order to be able to continue delivering essential water and water-related services.

1. Source waters and demand (physical)

Material climate-related risks, their effects on our business model and our response

Risk	Description (S1)	Current and anticipated effects on our business model. (S5)	How we have responded and plan to respond in our strategy and decision-making (S7)	Risk rating		
				5 years	25 years	40+ years
Product availability	Severe drought decreases source water availability (supply and yield). This risk leads to potential financial loss, reputational risks and customer impacts through water restrictions.	Our source waters have high exposure and vulnerability to climate extremes. The Very High risk rating for 25+ years for product availability reflects the fact our drinking water supply is currently reliant on rainfall dependent options. We describe potential controls in S7; however, our business model remains vulnerable until supply options are increased. The financial risk of reduced supply and demand is mitigated by our regulatory pricing model, so while our cash-flow would be affected by low sales there are pricing mechanisms available to retrospectively cover costs in extreme events (such as drought). If our systems are catastrophically compromised by poor water quality, our objectives and social licence to operate would be impacted by broad-scale provision of water that required further treatment to drink ("Boil water alerts").	Our Long-term Capital and Operating Plan (LTCOP) and Our Price Determination for 2025–30 highlight key investments to ensure water quality and reliability. Some of these key investments respond to risks climate variability poses to our source water: Upgrades to pre-treatment works at some of our water filtration plants to manage poor raw water quality Expansion of the Sydney Desalination Plant Investing in future purified recycled water options including delivery of Upper South Creek Advanced Water Recycling Centre (AWRC). These key investments are necessary to ensure the resilience of our supply and reduce the future level of climate-related risk for our source water. We have also collaborated with NSW Dept. Climate Change Energy, Environment and Water (DCCEEW), and WaterNSW to develop the Greater Sydney Drought Response Plan. This plan ensures all organisations are aligned to allow for decisions and actions to be adjusted based on observed climatic conditions. Adjustments are also being made to our shared risk assessment processes with these stakeholders to address water quality.	High	High	Very High
Product quality	Extreme rainfall, bushfire and heatwaves impact source water quality making it harder to treat, potentially pushing it outside of treatment capacity.			High	High	Very High
Changes in demand	Increased average temperatures, heatwaves, dry conditions and heat extremes result in increased water usage, both potable and recycled.			Medium	High	High

Climate-related risks and opportunities impact on financial position, financial performance and cash flow

This reporting period (S9)	Next reporting period (S10)	How it might change (S11, S12)		
		Short-term	Medium-term	Long-term
• Whilst there is no immediate financial impact in this reporting period for changes in demand • Severe bushfires and floods in recent years resulted in increased soil and silt run-off impacting Warragamba Dam's turbidity levels. Desalinated water from the Sydney Desalination Plant was required to be purchased • Increased investment in planning assets to improve resilience and reliability of our water supply • Commenced investment in upgrade of Water filtration plants. • Increased investment to progress construction and delivery of the Upper South Creek Advanced Water Recycling Centre (AWRC) and the related transport network.	• There is no significant risk of a material adjustment within the next annual reporting period	• We will need to increase our use of the existing capacity of the Sydney Desalination Plant • Minor changes to revenue due to potential reduced demand over period related to weather • Planned increase in investment in the upgrade of our water filtration plants to ensure safe, clean drinking water to ensure supply through all weather conditions • Planning costs and investment in assets to improve the resilience and reliability of our water supply • Delivery of Upper South Creek AWRC. Additional increased investments in future AWRC stages	• An increase in hot dry weather may increase demand increasing our desalinated water expense • We will need to increase our investment in desalination options through expanding the capacity of the Sydney Desalination Plant and investigating and delivering other desalination options • Further investment in purified recycled water options with additional operational costs incurred for the supply of purified recycled water • Additional operational costs to operate the expanded capacity of the water filtration plants post upgrade • Increased operational costs for operating the Upper South Creek AWRC. Expansion of Upper South Creek AWRC, and delivery of GPOP/Nepean AWRC plants.	• Consistent with the medium-term assessment.

2. Assets and environment (physical)

Material climate-related risks, their effects on our business model and our response

Risk	Description (S1)	Current and anticipated effects on our business model. (S5)	How we have responded and plan to respond in our strategy and decision-making (S7)	Risk rating		
				5 years	25 years	40+ years
Capacity impact	Reduction in the capacity of assets due to encroachment into the system. The hazards that primarily cause this issue are drought conditions, sea level rise, storms, and rainfall.	These risks have the potential to disrupt our ability to provide our required water, wastewater and stormwater services, and to do so in a way that is efficient, resilient and reliable. Wastewater network risks impact our ability to conduct our activities in a manner that protects the environment. There are no material risks for individual asset damage due to climate change alone, however, there is a need to manage the aggregated risk of asset damage across our asset base. This aggregated risk could significantly impact our renewals or critical mains programs or compromise water continuity service standard obligations. Current and anticipated financial impacts of individual asset damage are mitigated through the insurance coverage issued from the NSW Treasury Managed Fund (i-Care).	Our LTCOP highlights key investments that seek to address these risks through minimising single points of failure, interconnected systems, digital investment for early intervention and an enhanced emergency response. It also includes an increase in renewals spend in the long-term in response to climate-related hazards. In line with our LTCOP we are proactively investing in solutions to remove flow and loads from coastal wastewater systems via recycled water and purified recycled water. We are also investing in source control measures as part of the wet weather overflow abatement program, which is focused on reducing our impact on waterways. Key to our approach is working with the EPA, collaborating on licence improvements and investment prioritising to ensure we are achieving desired environmental benefits. It includes prioritising investment as part of the Hawkesbury Nepean Nutrient Framework and the River Restorations program to ensure we target highest impacts on waterway health. Another key action is improving the use of climate change projections in our asset management practices and forecasts. This will ensure internal decision-making and investment recommendations incorporate climate relevant adjustments.	High	High	High
Asset damage	Extreme events such as bushfires, storms and floods causing direct damage to assets requiring them to be repaired or replaced.			High	High	Very High
Environmental impact from wastewater	Climate hazards have broad impacts to our wastewater network and treatment operations, ranging from treatment efficiency to increased likelihood of discharges and overflows leading to adverse impact on waterway health.			High	High	High

Climate-related risks and opportunities impact on financial position, financial performance and cash flow

This reporting period (S9)	Next reporting period (S10)	How it might change (S11, S12)		
		Short-term	Medium-term	Long-term
• There is no immediate financial impact in this reporting period relating to asset damage • Current investment in upgrade of Orchard Hills Water Filtration Plant includes a pre-treatment plant to prevent damage to key treatment processes during intense rainfall / disrupted water quality events • Source control actions to complete smoke detection and repairs of private properties (redirecting connections from wastewater to stormwater networks) have some mitigative effect on potential wet weather impact.	• There is no significant risk of a material adjustment within the next annual reporting period	• Expanded investment in source control initiatives to address the increased risk of floods infiltrating in the wastewater network • Further analysis required to understand impact on treatment operations and additional costs to be incurred, Planned investment for Hawkesbury-Nepean Nutrient Framework (HNF) and River Health Program will address some of these concerns • Potential for increased expenses related to environmental regulatory proceedings • The extent of the increase in our insurance premium to provide protection against an increased risk of impact from climate change is not yet known with sufficient certainty.	• Source control investments consistent with short-term assessment. • Increased investment in amplification of wastewater storage or operations will be required. This investment will be considered alongside HNF and River Health Program • Planning, construction and delivery associated with potential relocation of assets to areas less impacted by bushfire/ floods • Increased capital investment in resilience of treatment operations will likely be required. • Potential for increased expenses related to environmental regulatory proceedings • Increased insurance premiums	• Source control, amplification, and treatment operation investments consistent with medium-term assessment. • Increased risk that insurer may limit coverage against climate related events and Sydney Water may need to self-insure.

3. Risks we share (physical)

Material climate-related risks, their effects on our business model and our response

Risk	Description (S1)	Current and anticipated effects on our business model. (S5)	How we have responded and plan to respond in our strategy and decision-making (S7)	Risk rating		
				5 years	25 years	40+ years
External service disruption	Climate hazards put stress on our suppliers (e.g. electricity, telecommunications, chemicals) which may lead to impacts to our or ability to supply water or continue treating wastewater.	External service disruption can affect our ability to achieve objectives for protection of public health and the environment. If our key services are disrupted, we could face asset shut down, inability to run processes, or loss of access to monitoring and controls affecting our ability to treat and move water and wastewater.	We already manage our third-party risk and supplier risks through our emergency management and business continuity work. As part of the climate risk management program, we intend to have a series of collaborations with key third party providers who share climate risks. The focus will be on building a shared understanding and ensuring our long-term investments address any vulnerabilities created through dependencies. This risk is explicitly called out because our ability to manage the risk depends on the third-party risk management approach, including their own climate-preparedness / maturity.	Medium	High	High
Community amenity and wellbeing	Reduced community amenity and well-being due to impacts of drought controls (e.g. water restrictions on outdoor use affecting cooling and greening) and/or wastewater issues in extreme weather (e.g. odour or overflows).	Sydney Water's objective to protect public health and long-term interests of communities could be compromised. Our social licence to operate, and shareholder trust, would be impacted by prolonged water restrictions or chronic poor service performance. Our regulatory model mitigates the potential financial effects of these risks. This risk also reflects impacts on the shared role with other government agencies and councils in community resilience (e.g. water for firefighting), water for greening and recreational water use, and long-term waterway health outcomes.	We are seeking to support programs for urban cooling and greening to help community resilience and wellbeing during periods of extreme heat and drought. We have an ongoing Water Conservation Program. This has benefits ensuring supply goes further and for customers to better understand their usage patterns. Our LTCOP also articulates investment in a waterway health improvement plan, collaborations with agencies on environmental flows during droughts and recycled water for cooling and irrigation.	Medium	High	High

Climate-related risks and opportunities impact on financial position, financial performance and cash flow

This reporting period (S9)	Next reporting period (S10)	How it might change (S11, S12)		
		Short-term	Medium-term	Long-term
• There is no immediate financial impact in this reporting period relating to external service disruption • Planning costs to improve the resilience and reliability of our water supply • Ongoing investment in our Water Conservation Program.	• There is no significant risk of a material adjustment within the next annual reporting period	• Additional investment is likely to be required to future proof the provision of the supply of water for firefighting. This is if bushfires are more severe and more frequent. • Additional increased investment in planned assets to improve the resilience and reliability of our water supply will be required • Additional operational expenditure is likely to be required to implement and enforce water restriction measures along with an increase in advertising and promotional spend • We will need to increase our use of the existing capacity of the Sydney Desalination Plant.	• Additional investment is likely to be required to future proof the provision of the supply of water for firefighting consistent with short-term assessment • Further investment in purified recycled water and additional operational/maintenance costs for the supply of purified recycled water will be incurred • Additional operational expenditure is likely to be required to implement and enforce water restriction measures consistent with short-term assessment.	• Additional investment is likely to be required to future proof the provision of the supply of water for firefighting consistent with short-term assessment • Further investment in purified recycled water and restrictions consistent with medium-term assessment.

4. Market (transition)

Material climate-related risks, their effects on our business model and our response

Risk	Description (S1)	Current and anticipated effects on our business model. (S5)	How we have responded and plan to respond in our strategy and decision-making (S7)	Risk rating		
				1 year	10 years	25 years
Changing Supply / Demand for materials	As the economy becomes less carbon intensive, the supply and demand for certain materials will change. Demand will be high for more sustainable materials and products which may drive up prices and competition to access them.	Material costs for capital projects could rise significantly as demand for low-carbon materials rise, mainly leading up to and beyond 2040 (Net Zero in the supply chain).	In Sydney Water's Transition Action Plan, we have identified steps to mitigating this risk. The action that most reduces risk is the action on the material procurement plan (Action 3). Action 3: Materials procurement plan Developing a procurement plan for low-embodied carbon materials reduces the potential for shocks to Sydney Water's financial position. This action includes activities such as: • Engaging with suppliers to identify materials with significant carbon footprints • Research and innovation into low embodied carbon materials • Collaboratively working with suppliers to trial low embodied carbon materials in projects and enabling the use of low embodied carbon materials through Sydney Water technical specifications and designs • Setting targets for emission reduction within projects Introducing a carbon value in decision making processes Beyond 2030, working with suppliers to put targets in place for reducing emissions and negotiating pathways for emissions abatement will act as further controls. The commercial viability of Net Zero contracts will also be assessed.	Low	High	Medium

Climate-related risks and opportunities impact on financial position, financial performance and cash flow

This reporting period (S9)	Next reporting period (S10)	How it might change (S11, S12)		
		Short-term	Medium-term	Long-term
• The implementation of low embodied carbon materials in the supply chain was limited.	• There is no significant risk of a material adjustment within the next annual reporting period	• Further analysis is needed to understand the financial impacts. The assumption is that the low carbon materials will cost more, both from direct manufacturing and through supply and demand.	• Consistent with short-term assessment.	• Consistent with short-term assessment • Lower financial risk as we become familiar with the low-carbon material market, and the market reaches a more balanced equilibrium between supply and demand.

5. Technology innovation (transition)

Material climate-related risks, their effects on our business model and our response

Risk	Description (S1)	Current and anticipated effects on our business model. (S5)	How we have responded and plan to respond in our strategy and decision-making (S7)	Risk rating		
				1 year	10 years	25 years
Use of energy intensive processes	To meet Environmental Licence and water quality and reliability requirements, high energy technologies are being installed. Continuing to use energy intensive technologies and processes in new or renewed assets poses a risk to Sydney Water's ability to achieve Net Zero targets.	To meet our Net Zero 2040 target, we will need to invest in low carbon and energy technologies and materials. This will involve retro-fitting and redesign of assets to allow for low energy intensive processes and technologies. These technologies involve increased cost and Sydney Water will need to balance keeping costs low with its objective of achieving Net Zero emissions. Without transitioning to low energy intensive processes, the amount of renewable energy and offsets will remain high increasing the cost of achieving Net Zero.	In Sydney Water's Transition Action Plan, we have identified steps to reducing this risk in the actions below: • Action 2: Investment in new low-carbon materials and technology • Action 3: Material procurement plan • Action 4: Enable use of low-embodied carbon materials and technology In addition to the materials procurement plan, these actions prioritise innovation in low embodied carbon materials and low energy technologies, funding trials and embedding these materials and technology in service delivery. This includes factoring in the lifecycle of materials and assets in planning and design with the carbon value included in business cases. Suppliers may be incentivised through contracts to prioritise low carbon materials and technologies to reduce this risk. Tools have been developed to assist in this assessment process and will continued to be revised as technology advances. Significant planned work is required to further analyse specific assets that require retrofitting, or risk being stranded. This risk may remain high in the short term; the pace of innovation should see risk levels decrease.	High	Medium	Low

Climate-related risks and opportunities impact on financial position, financial performance and cash flow

This reporting period (S9)	Next reporting period (S10)	How it might change (S11, S12)		
		Short-term	Medium-term	Long-term
• No immediate financial impact in this reporting period • Increased investment in and maintenance of renewable energy assets (cogeneration, hydro and solar) and energy efficiency • Converting the fleet lease portfolio to electric vehicles.	• There is no significant risk of a material adjustment within the next annual reporting period	• Investment will be required to consider new technology solutions to reduce scope 1 emissions from wastewater treatment • Increased investments in water conservation, resilience and reliability and energy efficiency programs • Further analysis is required to understand what assets will require retrofitting before a quantitative analysis can be made • Additional analysis is required to understand the type of asset and likely timing of stranding over the medium to long-term.	• It is expected that retrofitting and/or replacement will start to commence over the medium term. This will require additional investment • Increased investment to remove and/or replace stranded assets.	• Consistent with the medium-term assessment.

Climate risk concentration

Geographic areas

Bushfire poses a risk to Sydney Water's assets located close to bushland. This includes major assets such as treatment facilities and reservoirs as well as pumping stations on the edges of communities. The areas with the highest level of exposure to bushfire risk (a function of asset value and number of assets) are the Blue Mountains, Hornsby and Sutherland shires.

While high heat causes minimal physical damage to Sydney Water assets, it does affect operational services, notably customer demand and interdependent risks with the electricity sector. Days over 35°C are projected to increase across Metropolitan Sydney by an average of 4 days per year by 2030 (AdaptNSW – NARCliM Average). Projections for west and north-west are for increases by an average of 5–10 days per year by 2030.

Geographic concentration of exposure for other hazards is linked to the existing risk profile. Notably, flooding impacts could be further exacerbated in lower lying areas and sea level rise is expected to impact coastal asset, treatment plants, pipes and pumping stations. Extreme rainfall, drought and storms currently have no discernible change in impact profile spatially across our area of operations.

Assets and Products

We have carried out a qualitative assessment of our assets and products drawing on risk and failure probability data extracted from XDI (a climate quantification tool using NARCLiM 1.5; RCP 4.5). The results of the assessment show that bushfire, drought, and intense rainfall and flooding present the greatest risk to our assets and products. The asset class risk (table 4) aligns to Assets and Environment risks identified in the previous section. The product risks (table 5) align to Source Water and Demand risks, Environmental impact from wastewater and Community Amenity and Wellbeing. Energy production, a large contributor to our plans to meet Net Zero Emissions, also has a high risk of being affected by storms.

	Water / recycled water				Wastewater			Stormwater
	Pipes	Water pumping	Water treatment	Reservoir	Pipes	Wastewater pumping	Wastewater treatment	
Bushfire	M	H	H	H	M	L	H	M
Drought	M	L	M	L	H	L	L	L
Heatwaves	L	M	M	L	L	M	M	L
Intense rainfall and flooding	M	L	L	L	H	H	M	H
Sea level rise	L	L	L	L	M	M	L	L
Storms hail, wind and lightning)	L	L	M	M	L	L	M	M

Table 4 - Qualitative assessment of climate risk by asset class

	Drinking water	Recycled water	Wastewater	Stormwater	Energy Production
Bushfire	M	H	H	H	M
Drought	M	L	M	L	H
Heatwaves	L	M	M	L	L
Intense rainfall and flooding	M	L	L	L	H
Sea level rise	L	L	L	L	M
Storms hail, wind and lightning)	L	L	M	M	L

Table 5 - Qualitative assessment of climate risk by product

Transition

Our transition risk concentrates around our infrastructure delivery where we make decisions on construction and design of assets – specifically regarding the use of low carbon materials and inclusion of energy intensive treatment processes. These risks are difficult for Sydney Water to control, as they are influenced by external market factors and the pace of widespread decarbonisation. Our financial exposure to these risks is considerable and would have a significant impact on our business operations.

Sydney Water has many other transition risks which we are better placed to control – such as the fluctuating prices of offsets, regulatory changes, and meeting the expectations of customers towards decarbonisation. These transition risks, concentrated in the governance, planning and stakeholder engagement areas of our business, are controlled by policies and programs which are enabled by our Net Zero Program and 2030 net zero target. (S6)

Metrics and targets

Emissions

(note reporting on MT2abc, MT5cd, MT7c, MT9a can be found in Appendix 1)

Sydney Water's Net Zero target is 2030 in our operations (Scope 1 & 2 emissions). The objective of this mitigation target is to reduce Sydney Water's operational carbon emissions and contribute to NSW's transition to Net Zero (MT6b).

We do not currently have an explicit Gross GHG emissions target. To achieve our Net GHG target there are specific actions to reduce our gross emissions to net zero. In our plan for 2030, our Gross GHG emissions for Scope 2 are expected to be zero, assuming a renewable Power Purchase Agreement is in place. This will abate about 100,000 tonnes of CO2e using the forecast grid emission factors for 2030. This will be in addition to Sydney Water self-generating electricity through co-generation, hydro and solar. The remaining emissions will be limited to our Scope 1 emissions (treatment of wastewater, and transport and stationary fuels). To reduce our Gross Scope 1 emissions to net zero, the purchasing of carbon offsets will be needed. The equivalent carbon footprint for these Scope 1 'Gross' emissions is forecast to be between 50,000 and 60,000 tonnes of CO2e, approximately 11–13 % of Sydney Water's 2005 baseline footprint (MT9c)].

The NSW Government has legislated the Climate Change (Net Zero Future) Act 2023, which sets emissions reduction targets for NSW, including Net Zero by 2050. The NSW Government's current Statement of Expectations for Sydney Water sets out that Sydney Water is to operate its business in a way that is consistent with the NSW Net Zero 2050 Plan (target in table above). The Greater Sydney Water Strategy Implementation Plan also has actions for reducing emissions and supporting the NSW Government's Net Zero Plan. (MT6i) Failure to meet these targets could leave Sydney Water exposed to financial penalties or restrictions on our operating licence. Our Net Zero targets are more ambitious than NSW Government timelines, which strongly controls the risk of failing to meet these NSW legislative targets. We engage with our regulators regularly regarding emissions reporting and reduction to ensure we are well placed to meet any new requirements.

Table 6 - Our emissions related targets

Metric *(MT6a) (MT9b) (MT6h)*	**Target** *(MT6c)*	**Timing** *(MT6e)*	**Milestone targets** *(MT6g)*	**Baseline** *(MT6f)*	**Target applies** *(MT6d)*
Volume of Scope 1 & 2 carbon emissions (Absolute)	Net 0 CO2e tonnes per year	2030	334,000 tCO2e (2025) 279,000 tCO2e (2026)	390,000 tCO2e (2021)	Scope 1 and 2 emissions for Sydney Water (Operational Control)
Volume of Scope 3 carbon emissions (Absolute)	Net 0 CO2e tonnes per year	2040	Nil	390,000 tCO2e (2021)	Scope 3 emissions for of Sydney Water
Volume GHG emissions NSW Climate Change (Net Zero Future) Act 2023 (Absolute)	Net 0 CO2e tonnes per year	2050	50% reduction (2030) 70% reduction (2035)	~450,000 tCO2e (2005)	All GHG emissions for Sydney Water

Sydney Water's target for Net Zero Scope 1 & 2 emissions by 2030, and Net Zero Scope 3 emissions by 2040 was committed to in 2021 and has not been revised since. The glide-path for how we anticipate achieving Net Zero has been revised within the 2030 target, however we are still on track to achieve Net Zero operational emissions by 2030. A review of our targets would be triggered by not meeting our milestone targets. During engagement, customers recognised the role of Sydney Water in reducing carbon emissions, expressing a willingness to pay for this even with knowledge that bills are already expected to increase. We've set an objective of Net Zero carbon emissions to support environmental outcomes in the long-term interest of customers in response to our customers' preference to see Sydney Water achieve Net Zero emissions sooner. (MT7a, b, d)

Roadmap to achieving our goal (S7d,e)

Sydney Water's plan was developed in 2021 and using a marginal abatement cost process we identified emission reduction opportunities that meet our financial viability requirements (also reviewed in 2024). As part of this process a glidepath was developed factoring the electricity grid decarbonisation, Net Zero project opportunities and residual emissions. Sydney Water is a large electricity consumer, so the emission reduction opportunities focus on reducing our Scope 2 emissions through renewable energy generation (cogeneration, hydro and solar from new and existing assets), energy efficiency, and through purchasing renewable energy (Power Purchase Agreement PPA). Market Sounding has commenced for the PPA. The grid decarbonisation will play a role in location-based emission reduction, however we are not relying on the grid to reach Net Zero and will instead look towards market based reduction. Scope 1 emissions for a water utility are more complex. We have started to transition our passenger fleet to electric or hybrid vehicles and continue to scan the market for light and heavy vehicles and stationary plant and equipment alternatives. Wastewater treatment emission reduction opportunities are limited with research underway and pilot trials externally being monitored. The residual emissions will need to be offset in the short to medium term.

Planned use of carbon credits (MT9d)

We recognise that our pathway to achieving Net Zero emissions will require the use of carbon offsets from 2030 and beyond. This is primarily due to our difficulty with reducing Scope 1 emissions in wastewater treatment. Preliminary investigations have identified that we have limited capacity to self-generate offsets with the current land holdings and Australian Carbon Credit Unit (ACCU) methodologies available. We will need to purchase offsets and will carry out market sounding for offset acquisition in late 2025. All offset types are currently being considered, and an offset policy will be developed in the future. Ultimately, the purchase of ACCUs is expected to account for <15% of Sydney Water's 2005 baseline footprint.

Performance 2024–25

Sydney Water's GHG emissions in 2024–25 reflect our commitment towards Net Zero emissions. Scope 1 emissions increased slightly compared to previous years due to the highly variable nature of estimating Fugitive emissions from the treatment of wastewater. Following 3rd party audit of these preliminary calculations, it is expected that the final Scope 1 emissions submitted to the Clean Energy Regulator will be lower than the current figures and be more reflective of previous years. Scope 2 emissions decreased in line with falling grid electricity factors in NSW, favourable (dry) weather conditions, and consistent energy use from Sydney Water operations.

Notably, Sydney Water's renewable energy generation (71,630 MWh) increased by 22% compared to 2023–24 following the return to service of several key assets. Therefore, while Sydney Water's Gross Scope 1 & 2 emissions remain consistent with 2023–24, our reported emissions show the increased production and use of renewable energy in our operations. (MT8)

Table 7 - Our emissions performance

Metric (units) *(MT5a)*	**Measure type** *(MT5b)*	**2022–23**	**2023–24**	**2024–25***
Gross Scope 1 emissions (tCO2-eq) (MT1a)	absolute	35,147	35,142	46,758
Gross Scope 2 emissions (tCO2-eq) ** (MT1b) (MT4)	absolute	281,973	263,982	246,118
Reported volume of Scope 1 & 2 carbon emissions (CO2e tonnes per year) *** (MT8)	absolute	317,120	299,124	292,714
Gross volume of Scope 1 & 2 carbon emissions (CO2e tonnes per year) **** (MT8)	absolute	354,524	339,129	339,990

** 2024–25 emissions data is not finalised at the time of disclosure – results will be finalised as of October 31 upon submission to the Clean Energy Regulator, and retro-actively adjusted at our next disclosure.*

*** Sydney Water uses NSW location-based factors for estimating emissions from grid electricity consumption. Sydney Water will use both location-based and market-based factors when our PPA goes live.*

**** The emissions reported are those within our operational control as reported to the Clean Energy Regulator.*

***** These emissions numbers exclude the reduction from our renewable energy generation as Sydney Water sells Large Generation Certificates (LGCs) instead of retiring them. LGCs are not considered when we report to the Clean Energy Regulator.*

Climate adaptation

Sydney Water's target for responding to our physical risks is to improve our enterprise scale level of climate risk management maturity. This improved maturity will build our organisation wide climate-related risk assessment and management process for adaptation, enabling climate-related risks to be coordinated throughout the organisation, clearly identifiable, and appropriately addressed (MT6b).

Our maturity is assessed using the NSW Climate Risk Maturity Health Check Tool. Maturity is determined on a 5 level scale, through assessment of progress against key activities on the Climate Risk Ready Guide "4-step process" (MT5d).

Metric *(MT6a) (MT9b) (MT6h)*	**Target** *(MT6c)*	**Timing** *(MT6e)*	**Milestone targets** *(MT6g)*	**Base period** *(MT6f)*	**Where target applies** *(MT6d)*
Climate Risk Ready maturity (Qualitative)	Embedded	2027	Repeatable (FY25) Systematic (FY26)	2023	All of Sydney Water

Sydney Water's Operating Licence 2024–28 (10.3) requires us to do the following on the enterprise scale:

- **meet an embedded level** of climate risk management maturity by 30 June 2027 or another date nominated by Sydney Water and approved by IPART
- make **reasonable progress towards meeting an advanced level** of climate risk management maturity by 30 June 2028 or another date nominated by Sydney Water and approved by IPART (MT7a).

EPA NSW's Climate Change Policy and Climate Change Action Plan 2023–26 outline a comprehensive regulatory approach and set of actions to address the causes and consequences of climate change in NSW. A key pillar of their policy is 'adapting and building resilience to a changing climate', in which they will 'expect and support our regulated community to understand the impacts of climate change on their activities and to reduce their exposure to climate risks in a way that contributes to the State's goal of making NSW more resilient and adapted to a changing climate.' It is anticipated that this policy requirement will be reflected in our Environmental Protection Licences when they become subject to routine review (MT6i).

The target was established in 2023 for the 2024–2028 licence period and has not been reviewed, however, any changes to this target would need to be done in consultation with and by approval of our economic regulator IPART (MT7b, d).

Roadmap to achieving our goal (S7e)

Our Climate Change Risk and Adaptation Maturity Plan identifies a range of high priority outcome areas, which will be achieved through the delivery of a program of work.

1. Well-governed approach to climate risk – enhancing the governance, policy and management, understanding and responses to climate risks and opportunities
2. Increase adaptation capability and knowledge – increasing the information and knowledge available to staff to inform actions to enable climate resilient water and wastewater services
3. Enable climate resilient water and wastewater services – implementing actions to manage risk and adapt the water system to climate change
4. Transparent monitoring, evaluating and reporting - tracking and reporting progress in adaptation and ensuring insights influence future decisions
5. Understanding and managing shared interests and complex risks – influencing the system that Sydney Water works within, considering external stakeholders and interdependent, compounding and cascading risks.

Under each of these priority outcome areas are a series of priority projects, broken down into key sub-tasks and outputs to be delivered over the lifetime of the program plan, which anticipates work out to 2028, in line with the current operating license.

Performance 2024–25

In June this year Arcadius (a third-party assessor) undertook an audit of Sydney Water's self-assessment using the NSW Government's Climate Risk Maturity Health Check Tool v1.5. The audit verified Sydney Water's overall Climate Risk Maturity as Systematic (MT5c).

These results indicate that we are making meaningful progress toward meeting our climate risk maturity targets, surpassing our target for this financial year. Ongoing effort will be required to close remaining gaps, embed climate risk practices across the organisation, and align more closely with evolving regulatory and stakeholder expectations. Focus will be placed on improvements in the "Treat the risks" and "Monitor and review" pillars (see figure 3) (MT8).

Metric *(MT5a)*	**Measure type** *(MT5b)*	**2022–23**	**2023–24**	**2024–25**
Climate Risk Ready maturity (MT8)	Qualitative	N/A	Fundamental	Systematic

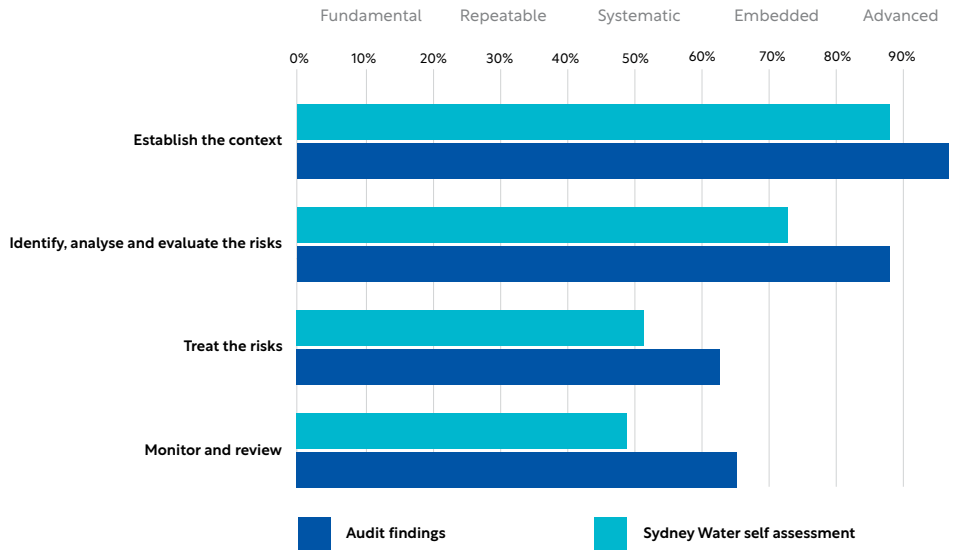

Figure 3 - Summary of overall findings from Sydney Water's Climate Risk Maturity assessment and audit

Appendix 1 – Background Net Zero Target

Other metrics used to monitor progress (MT7c)

Within the Carbon Zero plan, there are many smaller milestones in place to assist with reaching our Net Zero goals (Table 10). These milestones factor in major maintenance that is scheduled, plus deterioration in performance.

Table 10 - other metrics used to monitor progress to our Net Zero goals

	Goal by 2025	Goal by 2030	Goal by 2035
Solar	Installed capacity – 0.9MW Generation p.a - 1 GWh	Installed capacity – 18 MW Generation p.a - 23 GWh	Installed capacity – 18 MW Generation p.a - 21 GWh
Hydro	Installed capacity – 6 MW Generation p.a - 15.1 GWh	Installed capacity – 6 MW Generation p.a - 15.1GWh	Installed capacity – 6 MW Generation p.a - 9.7 GWh
Cogeneration	Installed capacity – 11.4 MW Generation p.a - 61.5 GWh	Installed capacity – 12.4 MW Generation p.a - 86 GWh	Installed capacity – 14 MW Generation p.a - 101 GWh
Energy Efficiency	1GWh	1GWh	1 GWh
Power Purchase Agreement (PPA)		433GWh pa FY 27–30 total 1,299 GWh	480GWhpa FY 31–35 total 2,400 GWh

GHGs are covered by the target (MT9a)

Sydney Water calculates emissions associated with many different GHGs, which occur naturally as part of our emissions footprint (MT9c):

- CO2 (Carbon Dioxide), from the combustion of fuel in direct activities (Scope 1), as well as indirectly from energy use (Scope 2)
- N2O (Nitrous Oxide), from the treatment of Wastewater (Scope 1)
- CH4 (Methane), from the treatment of Wastewater (Scope 1)
- SF6 (Sulfur-hexaflouride), from the use of high-voltage electrical equipment (Scope 1).

Approach to measurement (MT2a,b,c, MT5c,d)

Sydney Water reports its Scope 1 and 2 emissions for a site, service or facility of which we have operational control. We calculate emissions in accordance with the NGER Act 2007, as we meet the thresholds for reporting under this Scheme. We use emission factors included in the NGER measurement determination, including state-based factors for grid electricity carbon intensity, and approved methods for estimating Scope 1 emissions in Wastewater treatment (Method 2 for both Nitrogen and Methane emissions, as specified under the NGER measurement determination). Emissions associated with the combustion of fuel or natural gas also use factors found in the measurement determination, which are updated every financial year.

Our emissions reporting is done in reporting groups determined through a four-step process:

1. Identify each relevant individual activity and its ancillary activities
2. Classify activities into small, discrete series of activities based on Clause 2.20 of the NGER Regulations
3. Determine activities under Sydney Water's operational control using the "Defining facility and its operational control" policy. This process has been documented in "Assessing Sydney Water's facilities (and noting its operational control) for National Greenhouse and Energy Reporting purposes", completed in 2012. This document was reviewed in 2017 following a structural change to the governance of Sydney Water's networks, it was determined that no revisions in calculation methodology were necessary.
4. Compare each activity series to determine whether they are separate, independent activities or whether they should be combined to form a single undertaking or enterprise. Each single undertaking or enterprise resulting from this process is deemed to form a facility for the purposes of the NGER Act 2007.

Based on this process, our emissions are currently grouped into seven reporting entities (see Table 11) as follows:

- Four facilities (Malabar, North Head, Prospect and Wollongong) are reporting entities comprised of multiple connected plants which are not able to be separated
- Two facilities, Bondi and Cronulla, are separate reporting entities because these plants trigger the 'facility threshold' of 100 TJ for energy production and consumption, each constitutes a single plant and its respective network
- Sydney Water Facility Aggregate comprises 18 separate facilities, amalgamated into a single reporting entity due to the small relative contribution of each facility. If at any time a facility exceeds any facility threshold identified in the NGER manual, that facility must be reported as a separate entity. Currently, 9 of these treatment plants fall below the threshold for site-specific monitoring as per NGER Regulations 4.26 (1A) & (1B), and so their fugitive emissions from wastewater treatment are approximated using a like-for-like model plant (Penrith).

All reporting groups include emissions associated with their wastewater treatment (Scope 1), natural gas consumption (Scope 1), electricity use (Scope 2), and renewable energy generation / export (Scope 2). Scope 2 emissions from the transfer of water & wastewater within Sydney Water's pipe network are included in each reporting group, however any methane emissions from the transfer of wastewater within our pipe network (Scope 1) are not included, aligning with current NGER reporting requirements. Emissions associated with fuel consumption and SF6 (Scope 1) are only reported under 'Sydney Water Facility Aggregate', as there is no feasible method to determine where in Sydney fuel was consumed by our vehicles.

Sydney Water's emissions calculations are reviewed by external auditors before submitting to the Clean Energy Regulator, in addition to rigorous internal verification. For the past 2 years, Sydney Water has engaged RSM to conduct a limited assurance audit, moving to a reasonable assurance audit in FY25/26.

Table 11 - Emissions reporting entities

Reporting Entity	Contributing plants	Asset description
Bondi WRRF & Networks	Bondi	Water Resource Recovery Facility and network
Cronulla WRRF & Networks	Cronulla	Water Resource Recovery Facility and network
Malabar Treatment Plant & Networks (TP & NW)	Malabar	Water Resource Recovery Facility and network
	Glenfield, Liverpool	Water Resource Recovery Facility, Water Recycling Plant, and network
	Fairfield	Water Resource Recovery Facility
North Head Treatment Plant and Networks (TP & NW)	North Head	Water Resource Recovery Facility and network
	Penrith, Quakers Hill	Water Resource Recovery Facility, Water Recycling Plant, and network
	St Marys	Water Resource Recovery Facility, Water Rwwecycling Plant, Advanced Water Treatment Plant, and network
	West Hornsby	Water Resource Recovery Facility,
Prospect Networks	Prospect*	Network only, including Potts Hill and Ryde networks
	Orchard Hills, Cascade, North Richmond	Water Filtration Plant and network
	Woronora*, Macarthur*	Network only
Sydney Water Facility Aggregate (SWFA)	Bombo, Picton, Richmond, West Camden	Water Resource Recovery Facility, Water Recycling Plant, and network
	Bingara Gorge, Brooklyn, Hornsby Heights, North Richmond, Shellharbour, Wallacia, Warriewood, Winmalee	Water Resource Recovery Facility and network
		Water Resource Recovery Facility, Water Recycling Plant and network
	Castle Hill, Rouse Hill, Riverstone	Network only
	Illawarra*	Water Filtration Plant and network
	Nepean, Warragamba	Fuel and fleet vehicle consumption, Fuel consumption through major projects + scheduled maintenance
	Misc.	Buildings / Depots (e.g. Head Office), emissions that are unable to be apportioned to any other specific Facility
	Overheads	
Wollongong WRRF & Networks	Wollongong	Water Resource Recovery Facility, Water Recycling Plant and network
	Bellambi, Port Kembla	Water Resource Recovery Facility and network

**Four plants, Prospect, Woronora, Macarthur, and Illawarra are owned and operated by 3rd party contractors, and so fall outside Sydney Water's operational control and reporting boundary. The associated networks that connect to these four plants still fall within Sydney Water's operational control and reporting boundary.*

Emissions from networks include energy use (Scope 2) but exclude methane emissions in the transfer of wastewater (Scope 1) as they are not part of current NGER reporting requirements.

Appendix 2 – TPG24-33 requirements

Governance

Requirement		Section	Page
G1. The governance body (or bodies) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of climate-related risks and opportunities. Specifically, the entity shall identify that body (or bodies) or individual(s) and disclose information about:	a. How responsibilities for climate-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body (or bodies) or individual(s).	Governance	5
	b. How the body (or bodies) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee actions designed to respond to climate-related risks and opportunities.	Governance	5
	c. How and how often the body (or bodies) or individual(s) is informed about climate-related risks and opportunities.	Governance	5
	d. How the body (or bodies) or individual(s) takes into account climate-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body (or bodies) or individual(s) has considered trade-offs associated with those risks and opportunities.	Governance	5
	e. How the body (or bodies) or individual(s) oversees the setting of targets related to climate-related risks and opportunities (if any), and monitors progress towards those targets.	Governance	5
G2. Management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities, including information about:	a. Whether the role is delegated to a specific management-level position or management level committee and how oversight is exercised over that position or committee.	Governance	6
	b. Whether management uses controls and procedures to support the oversight of climate- related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions.	Governance	6
G3. In preparing disclosures to fulfil the requirements in G1. and G2, an entity shall avoid unnecessary duplication. For example, if oversight is managed on an integrated basis, the entity would avoid duplication by providing integrated governance disclosures for requirements G1 (a) to (e) and/or other sustainability-related risks and opportunities.		Governance	5–6

Strategy

Requirement		Section	Page
S1. Describe climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects.		Climate risks and opportunities	9–18
S2. Explain, for each climate-related risk and opportunity identified, whether the entity considers the risk to be a climate-related physical risk or climate-related transition risk.		Climate risks and opportunities	9–18
S3. Specify the time horizons – short, medium or long term – over which the effects of each of those climate-related risks and opportunities could reasonably be expected to occur.		Climate risks and opportunities	11–18
S4. Explain how the entity defines short term, medium term and long term, and how these definitions are linked to the planning horizons used by the entity for strategic decision-making.		Climate risks methodology	8
S5. Describe the current and anticipated effects of climate-related risks and opportunities on the entity's business model.		Climate risks methodology	11–18
S6. Describe where climate-related risks and opportunities are concentrated (for example, geographical areas, facilities, supply chains and types of assets).		Climate risk concentration	19–20
S7. Information about how the entity has responded to, plans to respond to, or both, climate-related risks and opportunities in its strategy and decision-making, including how the entity plans to achieve any climate-related targets it has set and any targets it is required to meet by law, regulation or government policy. Specifically, the entity shall disclose information about:	a. current and anticipated changes to the entity's business model, including its resource allocation, to address climate-related risks and opportunities (for example, these changes could include plans to manage or decommission carbon-, energy- or water-intensive operations; resource allocations resulting from demand or supply chain changes; resource allocations arising from business development through capital expenditure or additional expenditure on research and development; and acquisitions or divestments)	Climate risks and opportunities	11–18
	b. current and anticipated direct mitigation and adaptation efforts (for example, through changes in service delivery, workforce adjustments or relocation of office sites)	Climate risks and opportunities	11–18
	c. current and anticipated indirect mitigation and adaptation efforts (for example, through working with customers and service providers)	Climate risks and opportunities	11–18
	d. any climate-related transition plans the entity has, including information about key assumptions used in developing its transition plan, and dependencies on which the entity's transition plan relies	Emissions	21
	e. how the entity plans to achieve any climate-related targets, including any greenhouse gas emissions targets, described in accordance with disclosure requirements MT6 to MT9.	Emissions Climate Adaption	21 24
S8. Information about how the entity is resourcing, and plans to resource, the activities disclosed in accordance with disclosure requirement S7.		Climate risks and opportunities	9
S9. How climate-related risks and opportunities have affected its financial position, financial performance and cash flows for the reporting period.		Climate risks and opportunities	11–18
S10. The climate-related risks and opportunities for which there is a significant risk of a material adjustment within the next annual reporting period to the carrying amounts of assets and liabilities reported in the related financial statements.		Climate risks and opportunities	11–18
S11. How the entity expects its financial position to change over the short, medium and long term, given its strategy to manage climate-related risks and opportunities, taking into consideration:	a. its investment and disposal plans (for example, plans for capital expenditure, major acquisitions and divestments, joint ventures, business transformation, innovation, new business areas, and asset retirements), including plans the entity is not contractually committed to	Climate risks and opportunities	11–18
	b. its planned sources of funding to implement its strategy.	Climate risks and opportunities	11–18
S12. How the entity expects its financial performance and cash flows to change over the short, medium and long term, given its strategy to manage climate-related risks and opportunities.		Climate risks and opportunities	11–18

Risk Management

Requirement		Section	Page
R1. The processes and related policies the entity uses to identify, assess, prioritise and monitor climate-related risks, including information about:	a. the inputs and parameters the entity uses (for example, information about data sources and the scope of operations covered in the processes)	Climate risk methodology	7
	b. how the entity assesses the nature, likelihood and magnitude of the effects of those risks (for example, whether the entity considers qualitative factors, quantitative thresholds or other criteria)	Climate risk methodology	7
	c. whether and how the entity prioritises climate-related risks relative to other types of risk.	Climate risk methodology	7
	d. how the entity monitors climate-related risks.	Climate risk methodology Governance	7 6
R2. The processes the entity uses to identify, assess, prioritise and monitor climate-related opportunities.		Climate risk methodology	7
R3. The extent to which, and how, the processes for identifying, assessing, prioritising and monitoring climate-related risks and opportunities are integrated into and inform the entity's overall risk management process.		Climate risk methodology Governance	7 6
R4. In preparing disclosures to fulfil the requirements in R1, an entity shall avoid unnecessary duplication. For example, an entity would avoid duplication by providing integrated risk management disclosures instead of separate disclosures for each climate-related risk and opportunity and/or other sustainability-related risks and opportunities if these risks and opportunities are managed on an integrated basis.		Climate risk methodology	7

Metrics and Targets

Requirement		Section	Page
MT1. The following absolute gross GHG emissions generated during the reporting period, expressed as metric tonnes of CO2 equivalent:	a. scope 1 GHG emissions	Emissions	21
	b. scope 2 GHG emissions.	Emissions	21
MT2. The approach it uses to measure its GHG emissions including:	a. the measurement approach, inputs and assumptions the entity uses	Appendix 1 – Background Net Zero Target	27
	b. the reason why the entity has chosen the measurement approach, inputs and assumptions it uses	Appendix 1 – Background Net Zero Target	27
	c. any changes the entity made to the measurement approach, inputs and assumptions under the relevant NSW Government methodology during the reporting period and the reasons for those changes.	Appendix 1 – Background Net Zero Target	27
MT3. For Scope 1 and Scope 2 greenhouse gas emissions disclosed in accordance with disclosure requirement MT1, disaggregate emissions between:	a. the consolidated accounting group (for example, for an entity applying Australian Accounting Standards, this group would comprise the parent and its consolidated subsidiaries)	N/A	
	b. other investees excluded from disclosure requirement MT3a (for example, for an entity applying Australian Accounting Standards, these investees would include associates, joint ventures and unconsolidated subsidiaries).	N/A	
MT4. For scope 2 greenhouse gas emissions disclosed in accordance with MT1b, disclose its location-based Scope 2 greenhouse gas emissions.		Emissions	21
MT5. If another metric has been developed by an entity, the entity shall disclose information about:	a. how the metric is defined	Emissions Climate adaptation	23 25
	b. whether the metric is an absolute measure, a measure expressed in relation to another metric or a qualitative measure, such as a red, amber, green (RAG) status	Emissions Climate adaptation	23 25
	c. whether the metric is validated by a third party and if so which party	Appendix 1 – Background Net Zero Target Climate adaptation	27 25
	d. the method used to calculate the metric and the inputs to the calculation, including the limitations of the method used and the significant assumptions made.	Appendix 1 – Background Net Zero Target Climate adaptation	27 24

MT6. For each target, the entity shall disclose:	a. the metric used to set the target and to monitor progress towards reaching the target	Emissions Climate adaptation	21 24
	b. the objective of the target (for example, mitigation, adaptation or conformance with science-based initiatives)	Emissions Climate adaptation	21 24
	c. the specific quantitative or qualitative target the entity has set or is required to meet	Emissions Climate adaptation	21 24
	d. the part of the entity to which the target applies (for example, whether the target applies to the entity in its entirety or only a part of the entity, such as a specific business unit or specific geographical region)	Emissions Climate adaptation	21 24
	e. the period over which the target applies	Emissions Climate adaptation	21 24
	f. the base period from which progress is measured	Emissions Climate adaptation	21 24
	g. any milestones and interim targets	Emissions Climate adaptation	21 24
	h. if the target is quantitative, whether it is an absolute target or an intensity target	Emissions Climate adaptation	21 24
	i. how the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target.	Emissions Climate adaptation	21 24
MT7. An entity shall disclose information about its approach to setting and reviewing each target, and how it monitors progress against each target, including:	a. whether the target and the methodology for setting the target has been validated by a third party	Emissions Climate adaptation	21 24
	b. the entity's processes for reviewing the target	Emissions Climate adaptation	21 24
	c. the metrics used to monitor progress towards reaching the target	Appendix 1 – Background Net Zero Target	26
	d. any revisions to the target and an explanation for those revisions.	Emissions Climate adaptation	21 24

MT8. An entity shall disclose information about its performance against each climate-related target and an analysis of trends or changes in the entity's performance.		Emissions Climate adaptation	23 25
MT9. For each GHG emissions target disclosed in accordance with requirements MT6 and MT7, an entity shall disclose:	a. which GHGs are covered by the target	Appendix 1 – Background Net Zero Target	26
	b. whether scope 1 or scope 2 GHG emissions are covered by the target	Emissions	21
	c. whether the target is a gross GHG emissions target. If the entity discloses a net GHG emissions target, the entity is also required to separately disclose its associated gross GHG emissions target	Emissions	21
	d. the entity's planned use of carbon credits to offset GHG emissions to achieve any net GHG emissions target. In explaining its planned use of carbon credits, the entity shall disclose information including:	Emissions	22
	i. the extent to which, and how, achieving any net GHG emissions target relies on the use of carbon credits		
	ii. which third-party scheme(s) will verify or certify the carbon credits		
	iii. the type of carbon credit, including whether the underlying offset will be nature-based or based on technological carbon removals, and whether the underlying offset is achieved through carbon reduction or removal		

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