BUDGET ESTIMATES 2021-2022 Additional hearings

Portfolio Committee No. 1 – Premier and Finance

Finance and Employee Relations

Hearing: Friday 4 March 2022

Answers to questions taken on notice

GARNISHEE ORDERS – COMPLAINTS AND REIMBURSEMENTS

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Question 1: Prior to a protected amount being introduced for garnishee orders in August 2016:

(a) How many complaints relating to a garnishee order resulting in the emptying of a bank account were received?
(b) In how many cases was a reimbursement to the bank account made?

Answer: Between August 2014 and July 2016, 2,850 customers contacted Revenue NSW and had a refund approved after money was deducted from their account following a garnishee order.

GARNISHEE ORDERS – ADMINISTRATIVE COST

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Question 2: What is the administrative cost of a garnishee order?

Answer: The administrative cost to issue a Garnishee Order is not calculated by Revenue NSW in isolation from other enforcement actions. Revenue NSW receives funding to provide a range of services to customers in relation to issuing and enforcement actions including Garnishee Orders. This funding covers the administration, phone calls and other customer services we provide to our customers.

The regulations provide for an enforcement cost of $65 to be applied by Revenue NSW when issuing a Garnishee Orders. This cost is only applied once for a Bank Garnishee Order and only where the amount of debt exceeds $400. The cost is payable to consolidated revenue.

GARNISHEE ORDERS – PROTECTED AMOUNT

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Question 3: What was the protected amount for garnishee orders at each point it was varied from August 2016 to today?

Answer:

Date range	Protected Amount
1 April 2016 to 30 September 2016	$480.50
1 October 2016 to 31 March 2017	$484.10
1 April 2017 to 30 September 2017	$490.40
1 October 2017 to 31 March 2018	$494.30

1 April 2018 to 30 September 2018	$500.60
1 October 2018 to 31 March 2019	$504.60
1 April 2019 to 30 September 2019	$512.10
1 October 2019 to 31 March 2020	$516.40
1 April 2020 to 30 September 2020	$523.10
1 October 2020 to 31 March 2021	$527.40
1 April 2021 to 30 September 2021	$530.30
1 October 2021 to 31 March 2022	$536.90

NOMINAL INSURER – ACTUARIAL REPORT

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Question 4: Please provide the actuarial report on the Nominal Insurer for December 2021 or the Executive Summary of that Report.

Answer: Nominal Insurer liability valuation summaries are publicly available on the icare website. The summary of the December 2021 valuation is expected to be available from 31 March 2022.

INDUSTRIAL AGREEMENTS DUE TO EXPIRE

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Question 5: Please provide a list of industrial agreements due to expire by 30 June 2022.

Answer:

Expiry Date	Agreement
1/05/2021	NSW Trains Enterprise Agreement 2018
	Sydney Trains Enterprise Agreement 2018
30/06/2021	Natural Resources Commission (Staff Agency) Enterprise Agreement 2018 - 2020
	Nurses' (Department of Communities and Justice - Ageing, Disability and Home Care) (State) Award 2020
31/12/2021	Crown Employees (Education Employees Department of Justice - Corrective Services NSW) Award 2019
	Crown Employees (Teachers in Schools and Related Employees) Salaries and Conditions Award 2020
	School Psychologist and Senior Psychologist, Education, s52 Determination 06 – 2021
	TAFE Commission of NSW TAFE Managers Enterprise Agreement 2019
17/02/2022	Venues NSW (SCG & SFS Event Day Employees) Award 2021
22/02/2022	Venues NSW - Sydney Cricket and Sports Ground Trust - Common Law Contract and Administrative Clerical Employees
24/02/2022	Crown Employees (Fire and Rescue NSW Firefighting Staff Death and Disability) Award 2021
25/02/2022	Crown Employees (Fire and Rescue NSW Permanent Firefighting Staff) Award 2021
	Crown Employees (NSW Fire and Rescue NSW Retained Firefighting Staff) Award 2021
30/06/2022	2021 Parliamentary Remuneration Tribunal Determination (Members of Parliament)
	2021 SOORT Determinations (Senior Execs, SES, Judges & Mags, Court and Related Officers, Public Office Holders)
	Ambulance Service of New South Wales Administrative and Clerical Employees (State) Award 2021

	Border Fence Maintenance Employees Enterprise Agreement 2021
	Crown Employees (Audit Office) Award 2021
	Crown Employees (Department of Planning, Industry and Environment) Sydney Olympic Park Authority Managed Sports Venues Award 2021
	Crown Employees (Department of Planning, Industry and Environment) Wages Staff Award 2021
	Crown Employees (Independent Pricing and Regulatory Tribunal) Award 2021
	Crown Employees (Medical Officers) Award 2020
	Crown Employees (NSW Police Force (Nurses')) Award 2021
	Crown Employees (Office of Environment and Heritage - National Parks and Wildlife Service) Field Officers and Skilled Trades Salaries and Conditions 2021 Award
	Crown Employees (Public Sector - Salaries 2021) Award
	Crown Employees (School Administrative and Support Staff) Award
	Crown Employees Nurses' (State) Award 2019
	Crown Employees Wages Staff (Rates of Pay) Award 2021
	Destination NSW Common Law Contracts 2021
	Determination by Premier's delegate - Members of Parliament Staff Act 2013 (MOPS Act) - Premier, Ministers and Leader of the Opposition Staff (Chiefs of Staff and Senior Staff) 2021
	Essential Energy Common Law Contracts
	Forestry Corporation Common Law Contracts (Senior management Team) 2021
	Forestry Corporation of NSW Enterprise Agreement 2021-2022
	Health Employees' (State) Award 2019 and related HSU Awards 2021
	Health Industry Status of Employment (State) Award 2019
	Health Professional and Medical Salaries (State) Award 2019
	Higher School Certificate Marking and Related Casual Employees Rates of Pay and Conditions Award 2021
	Hunter Water Corporation Common Law Contracts 2021
	Hunter Water Corporation Employees Enterprise Agreement 2021
	Hunter Water Corporation Engineers & Scientists (APESMA) Enterprise Agreement 2021
	Independent Commission Against Corruption Award 2021
	Insurance and Care - common law contracts 2021
	Insurance and Care NSW Award 2017
	Landcom (UrbanGrowth) Common Law Contracts 2021
	Landcom Award 2021
	Local Land Services Award 2021
	Ministry of Health - Numerous public health system awards and Determinations made under s116A of the Health Services Act 1997 [2019]
	NSW National Parks and Wildlife Service Flight Operations Enterprise Agreement 2021
	NSW Police Force Aircraft Maintenance Engineers Section 86 Determination no 328 of 2020
	NSW Police Force Civilian Pilots Section 86 Determination no 340 of 2021
	NSW Police Medical Officer (Health and Wellbeing) Section 86 Determination 344 of 2021
	Operational Ambulance Managers (State) Award 2021
	Paramedics and Control Centre Officers (State) Award 2021
	Parliamentary Reporting Staff (Salaries) Award

	Parliament of NSW - Member's Staff Conditions of Employment - Determination of the Presiding Officers - MoPS Act 2021
	Parliament of NSW - Parliamentary Senior Officer Determination
	Port Authority of New South Wales - Port Kembla Enterprise Agreement 2021-2022
	Port Authority of NSW - Non Executive Common Law Contracts
	Port Authority Senior Management Team Executive Common Law Contracts (Port Kembla, Newcastle, Sydney Ports)
	Public Health Service Employees Skilled Trades (State) Award 2021
	Public Health System Nurses and Midwives (State) Award 2021
	Public Hospital (Career Medical Officers) (State) Award 2019
	Public Hospital (Medical Superintendents) Award 2019
	Public Hospital (Professional and Associated Staff) Conditions of Employment (State) Award 2019
	Public Hospitals (Visiting Medical Officers Sessional Contracts) Determination 2019
	Rates of Pay for Examination Staff other than Markers Determination 2021/22
	Roads and Maritime Services (Traffic Signals Staff) Award 2019
	Roads and Maritime Services (Wages Staff) Award 2021
	Roads and Maritime Services Consolidated Salaried Award 2019
	Roads and Maritime Services School Crossing Supervisors Award 2019
	Service NSW (Salaries and Conditions) Employees Award 2021
	Staff Specialists (State) Award 2021
	Sydney Opera House Enterprise Agreement
	Sydney Water Common Law Contracts
	TAFE Commission of NSW Teachers and Related Employees Enterprise Agreement 2021
	TAFE Commission of NSW Teachers in TAFE Children's Centres Enterprise Agreement 2021
	Taronga Conservation Society Australia Retail and Restaurant Award Employees' Award 2021 - 2022
	Taronga Conservation Society Australia Wages Employees' Award 2021-22
	T-Corp Common Law Contracts 2021
	Teachers (NSW Health Early Childhood Service Centres) Salaries and Miscellaneous Conditions Award 2019
	Transport for New South Wales and Sydney Metro Salaries and Conditions of Employment Award 2021
	Visiting Dental Officers - NSW Health Policy Directive - Remuneration and Contract Requirements 2019
	Water New South Wales Common Law Contracts 2021
	WaterNSW Enterprise Agreement 2021

NOMINAL INSURER – RETURN TO WORK RATE

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Question 6: Is the December 2021 4 week Return to Work Rate of 62.6% the lowest this rate reached since 2012?

Answer: No. it was 60% in December 2019.

NOMINAL INSURER – EML

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Question 7: How much did the Nominal Insurer pay EML in 2020?

Answer: The total anticipated amount for payment to EML Return to Work and Support Services for the 2021 calendar year paid and accrued is $204,944,926.

TREASURY MANAGED FUND – FIRE AND FLOOD CLAIMS

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Question 8: What is the cumulative cost to the Treasury Managed Fund of claims for fire and flood damage from 2019/20 onwards?

Answer: In 2021, the Treasury Managed Fund paid out $37,266,541 for losses due to floods and $43,317,587 for losses due to bushfires. The payment of claims will occur over a period of years based on the speed of rebuilding. Payments in 2021 were lower than expected as a direct result of the impact of Covid-19 and its impact in delaying the rebuilding process.

The total estimated loss from floods (to 2021 only) is $143 million and from bushfires is $476 million.

ASSET AND LIABILITY COMMITTEE – CLIMATE CHANGE

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Question 9: When did the Asset and Liability Committee first include climate change impact on its agenda?

Answer: April 2018

ASSET AND LIABILITY COMMITTEE – CLIMATE CHANGE PAPER

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Question 10: Please provide a copy of the paper on climate risk and the impact on the State's assets and liability presented to the Asset and Liability Committee in December 2021.

Answer: A copy of this paper has been provided.

DUST DISEASES SCHEME

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Question 11: What is the additional cost incurred by the Dust Diseases Scheme after the re-allocation of cost centres?

Answer: As part of standard insurance practice, icare reviews its allocation of costs to each of the schemes it supports on an annual basis. This is done to make sure the costs covered by each scheme reflect the effort expended in the support of each scheme.

icare received external legal advice prior to the accounts being signed by the Audit Office in FY2019/20 confirming the cost allocation approach was correct. Confirmation was also received from the Crown Solicitors Office in FY2020/21 that the approach was in line with relevant icare and scheme legislation.

In the course of the FY2020/21 review of cost allocations, it was determined that the indirect costs allocated to the Dust Diseases Care scheme should increase from $2.1 million to $15.5 million to better reflect the scheme's use of icare resources. This change was reviewed by the NSW Audit Office in the course of its audit of the icare annual financial statements.

icare and the schemes it services have received unqualified audit opinions since 2015.

GARNISHEE ORDERS, PROPERTY SEIZURES AND CHARGES ON LAND

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Question 12: Over the last three financial years how many times did Revenue NSW pursue (a) garnishee orders (b) seize property or (c) impose charges on land to enforce the collection of debt?

Answer: Between 1 July 2019 and 28 February 2022:

(a) Garnishee Orders were issued for 258,081 customers;

(b) Property Seizure Orders were issued for 12,764 customers (noting that no Property Seizure Orders have been issued since the start of the Covid-19 Pandemic); and

(c) Charges on Land were issued for 143 customers.

50% REDUCTION IN FINES

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Question 13: Which offences are excluded from eligibility for a 50% reduction in fines because they are considered to be "serious or significant offences"?

Answer: Offences that generally would not be considered for a reduction are:

- Speeding over the sign posted speed limit
- Any offences in School Zones
- Heavy Vehicle offences
- Any seatbelt offences
- Mobile phone offences
- Red light offences
- Parking offences which attract demerit points like parking in a disabled parking area
- Animal offences relating to dangerous dogs
- Littering offences relating to fire safety hazards (lit cigarettes)
- Bicycle related mobile phone or red light offences
- Pollution offences (including asbestos offences)
- COVID-19 offences
- Criminal offences
- Alcohol and drug related driving offences

PHONE CALLS REGARDING PAYMENT OF FINES

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Question 14: In 2020/21 how many phone calls were received by Revenue NSW which related to fines or fines debt?

Answer: During the 2020/2021 financial year, there was a total of 973,396 calls answered that related to fines or fines debt. Of these, Revenue NSW answered 243,128 and Service NSW answered 730,268.

50% REDUCTION IN FINES - NOTICE

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Question 15: Please provide an example of the notice given with a fine that points vulnerable people to options such as the 50% reduction in fines.

Answer: Current notices do not specifically refer vulnerable people to the 50% reduction in fines available to eligible customers, however they do provide a range of other available options.

The Revenue NSW website https://www.revenue.nsw.gov.au/fines-and-fees/cant-pay-your-debt provides options for anyone having difficulty paying, one of which is the option to apply for a 50% reduction in the fine amount. Other options listed include payment plans, work and development orders and debt write-off. Our website contains direct links on how to apply and encourages our customers to call us to discuss their eligibility, unique circumstances, and options to resolve their debt.

Revenue NSW is currently exploring redesigning these notices based on behavioural insights, to help educate our customers about their options, encourage them to act, and better assist them in resolving their fines.

COVID-19 PUBLIC HEALTH ORDER FINES - WITHDRAWN

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Question 16: How many COVID-19 Public Health Order fines have been withdrawn due to inability to pay?

Answer: Revenue NSW considers each customer's situation when resolving fines. Options for customers facing hardship include an evaluation of financial circumstances to assess their capacity to pay. Where it is determined a person no longer has capacity to pay, the debt may result in a full or partial write-off.

Of the customers who have engaged with us to date in relation to their COVID-19 fine for breaching Public Health Orders there have been a total of 168 fines written off.

Revenue NSW is continuing to engage with customers who are experiencing financial hardship, providing support and alternate options to resolve their fines.

COVID-19 PUBLIC HEALTH ORDER FINES – YOUNGEST MINOR

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Question 17: How old was the youngest minor to incur a COVID-19 Public Health Order fine?

Answer: As at 15 February 2022, the age of the youngest minor to receive a fine for breaching a COVID-19 Public Health Order was 13.

FINES FOR MINORS

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Question 18: In 2020/21 and in 2021/22 to date: (a) How many persons turning 18 years of age were contacted regarding unpaid fines incurred as a minor? (b) How many minors with fines were diverted to Work and Development Orders or other alternative approaches to resolving their fines?

Answer:

(a) Persons turning 18 contacted regarding unpaid fines incurred as a minor

Financial year 2020/21:	2
1 July 2021 to 28 February 2022:	26

(b) Minors with fines diverted to Work and Development Orders or other alternate approaches

Financial year 2020/21:	18
1 July 2021 to 28 February 2022	326

COVID-19 PUBLIC HEALTH ORDER FINES - WITHDRAWN

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Question 19: What actions have been taken in relation to minors who incurred over $3,000 in COVID-19 Public Health Order fines?

Answer: If a minor receives a fine and it is not resolved within the legislated timeframe, Revenue NSW will issue an overdue fine notice (enforcement order) with an additional $25.00 enforcement cost.

However, on 28 February 2022, Revenue NSW placed a hold on taking any additional enforcement actions against minors in respect to COVID-19 Public Health Orders fines once they reached the overdue fine notice stage (regardless of the fine amount).

Revenue NSW is working through the individual circumstances of minors that have significant fines debt to provide the best possible support.

COVID-19 PUBLIC HEALTH ORDER FINES – NUMBER OF INDIVIDUALS

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Question 20: (a) How many individuals incurred COVID-19 Public Health Order fines? (b) How many of these individuals were minors?

Answer:

(a) Individuals

Financial Year 2020/2021:	2,029
1 July 2021 to 28 February 2022:	44,651

(b) Minors

Financial year 2020/21:	37
1 July 2021 to 22 February 2022:	1,758

HARVEST LEAVE

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Question 21: (a) What role, if any, was played by the Minister for Employee Relations in facilitating special harvest leave for public sector workers in 2021? (b) Please provide data on Harvest Leave taken by (i) full time (ii) parttime and (iii) casual employees?

Answer: The Industrial Relations Secretary signed a determination under s52 of the *Government Sector Employment Act 2013* to provide paid special leave for employees of the Department of Regional NSW to assist with the 2021/2022 harvest. This determination remains in force until 30 June 2022.

Advice from Regional NSW is that ongoing and temporary staff are able to access five days special leave from 1 November 2021 to 30 June 2022.

As of 28 February 2022, 36 employees totalling 169 days / 1,206.6 hours have been granted Special Leave - Harvest.

Of the 36 employees, 33 are full time and 3 are part time.

INDUSTRIAL RELATIONS ADVISORY COUNCIL

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Question 22 (a) Since 2011, when has the Industrial Relations Advisory Council (i) met or (ii) failed to meet due to lack of quorum? (b) What is it current status?

Answer: Since 2011, the Industrial Relations Advisory Council has met on 8 occasions. The last meeting was convened on 3 November 2014.

The Industrial Relations Advisory Council has never failed to meet due to lack of quorum.

The Statutory Review of the *Industrial Relations Advisory Council Act 2010* tabled in the legislative Assembly on 20 October 2016, concluded that "*The Industrial Relations Advisory Council does not appear to be serving any significant practical purpose*."

NSW GOVERNMENT | Treasury

ALCO Briefing

Title	Climate-Related Risk – Progress Update Other Significant Risk
Purpose	For noting
ALCO Meeting Date	8 December 2021
Contacts	Alison Weaver/Aaron Brock, Director, Sustainable Finance, Strategic Balance Sheet Management (SBSM) Katherine Palmer, Executive Director, Strategic Balance Sheet Management (SBSM)

1 Recommendations

It is recommended that Asset and Liability Committee (ALCO):

i.) **Note** the refined approach to climate risk metrics that delineates more clearly physical and transition risk and distinguishes the responsibilities of ALCO and other entities for overseeing climate risk to the State's balance sheet; and

ii.) **Note** the baseline climate related risks metrics for non-financial assets generated by the Cross-Dependency Initiative (XDI) Platform and **endorse** reporting on the physical climate risk to the State's non-financial assets using updated XDI outputs annually.

2 Summary

2.1 This paper responds to ALCO's request for a deep dive into XDI modelling outputs including the Value at Risk/ Risk Fraction metric and the need for a refined approach to climate risk metrics that delineates physical and transition risk, and more clearly distinguishes different risk owners within climate risk.

3 Proposal

ALCO's Climate related risk remit

3.1 The updated ALCO Charter in early 2021 designated Climate Risk as an Other Significant Risk (OSR). OSRs are risks that are generally covered by a specific Government entity and can have a significant impact on the State's finances. The Committee can request information on OSRs if deemed appropriate.

3.2 Climate related risk is defined as the risk that assets are adversely affected by climate change and associated extreme weather events, especially those assets in high-risk areas.

3.3 In June 2021, the committee discussed the need to clarify ALCO's role in overseeing climate risks to NSW assets and agreed that its initial focus would be on physical risks, with transition risks as a medium term focus. The committee proposed that the approach to climate risk should more clearly segment the different dimensions of climate risk and clarify accountability for managing these risks within the NSW public sector. The approach to climate risk metrics and reporting proposes:

- Physical climate risk to the State's non-financial assets to be monitored by ALCO as an 'Other Significant Risk' to the State's balance sheet on an annual basis, using XDI outputs as a baseline. Management of the operational impacts of climate risks are the responsibility of DPIE, and management of the financial impacts are the joint-responsibility of Treasury, DPIE, iCare and Resilience NSW in accordance with the ALCO Charter; and
- Transition climate risk to the State's financial assets to be monitored by the SFSC. Responsibility for managing the financial impact of transition related risk for investment portfolios (the amalgamation of the State's financial assets) is the responsibility of TCorp (as reflected in the entity's Investment Management Board Policy in reference to investment portfolios), with engagement with Treasury, State Super and iCare. As previously endorsed by ALCO, Treasury will work with DPIE to develop transition climate risk metrics for non financial assets over the next 6 to 18 months.

Climate risks to assets and infrastructure – XDI's data and modelling approach

3.4 The XDI Platform quantifies the probability of damage risk, associated costs, and operational disruptions to assets considering the three drivers of risk - hazard, exposure, and vulnerability. XDI applies spatial data to determine the probability of exposure of assets to hazards, considering the vulnerability of assets to it. Climate projections are applied to identify how hazards and exposure to hazards will change over time.

Data assumptions and Limitations

3.5 Most of the data has been drawn from publicly available sources and not directly from asset registers of government department and agencies, and therefore reflects general and location characteristics of assets, rather than individual asset specific data. The outputs should be viewed as indicative and useful to understand high level distribution of risks across locations and asset types.

3.6 XDI's modelling approach uses a high emissions scenario. While international agreements such as the Paris Accord aim to keep warming below 2 degrees, there are significant global policy gaps in achieving this outcome, and this reflects that gap. Projections used are expected to be updated in future iterations once the NSW

Government NARCliM 2.0 climate data is released. A detailed list of assumptions and limitations is included on page 1 of Attachment A.

XDI Modelling Outputs

3.7 Two key metrics have been identified:

- Average Value at Risk (VaR) – the average VaR across the portfolio of assets analysed
- High Risk Properties – the number of assets where VAR is greater than 1%

Average Value at Risk

3.8 The average VaR across the portfolio of analysed assets is expected to increase by 142% to 2080, from an average VAR of 0.33% in 2020, 0.4% in 2030, to 0.8% by 2080. A VAR greater than 0.2% indicates a moderate risk to an asset, while a VAR above 1% is considered high risk, with commensurate increases in insurance cost.

3.9 The increase varies across sectors, with parks and open space assets which typically occupy vulnerable locations, facing the highest risk. However critical water, emergency and education assets are also highly exposed. (Figure 1).

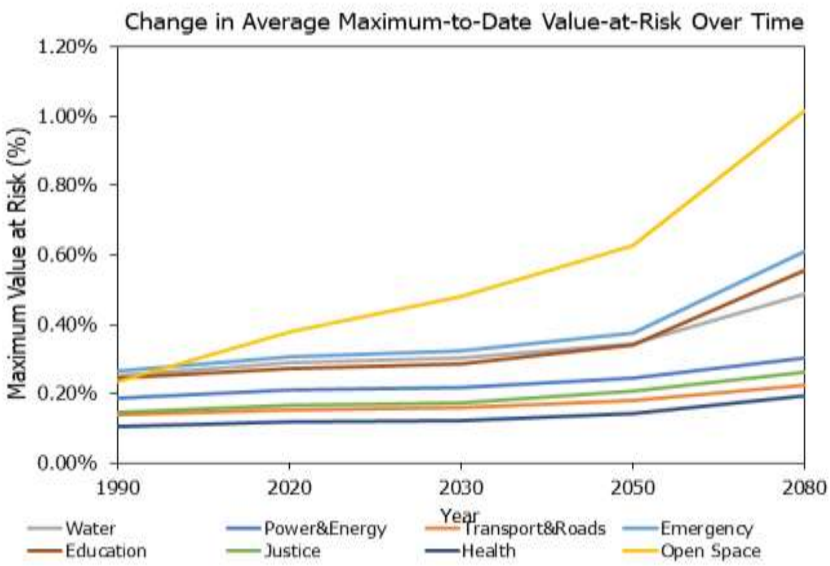

Figure 1. Change in average VAR for key government asset sectors

3.10 Hazards driving the increasing VAR are expected to change over the century with flood and fire the most dominant hazard in 2020 being surpassed by coastal inundation by 2030 which will remain the dominant hazard beyond 2030 (Figure 2). This is reflective of sea level rise risks and the large number of assets in coastal settings.

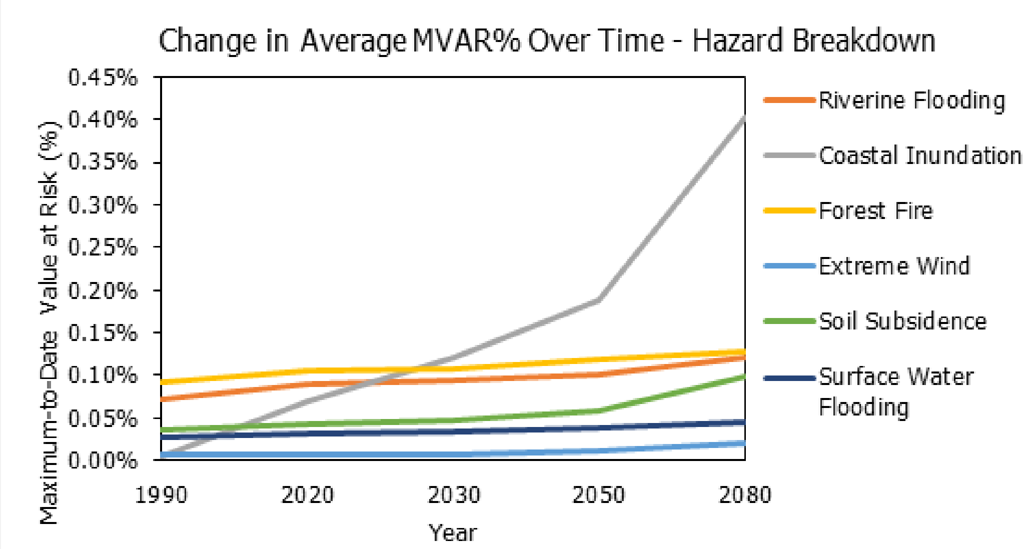

Figure 2. Trends in the hazards contributing to VAR to NSW Government Assets

High Risk Properties/Assets (HRP)

3.11 Assets are considered high risk where their VAR is greater than 1%. As risk rises on average across government assets, so too will the proportion of assets at high-risk. Of the analysed assets, 5% (1,278) were identified as high risk in 2020, 6% (1,474) in 2030 but this is expected to increase to 14% (3,257) in 2080 (Figure 3).

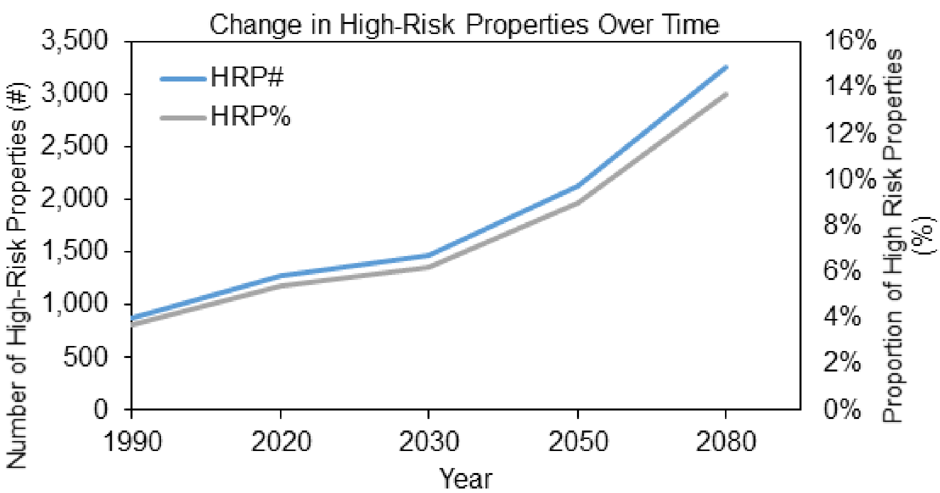

Figure 3. Trend in the number and proportion of high-risk assets across the analysed NSW Government asset portfolio.

3.12 The location of high-risk properties can be analysed to identify climate hotspots (Figure 4). Consistent with the finding on the relative risks of different hazards, coastal regions are the areas with the greatest number of high risk assets.

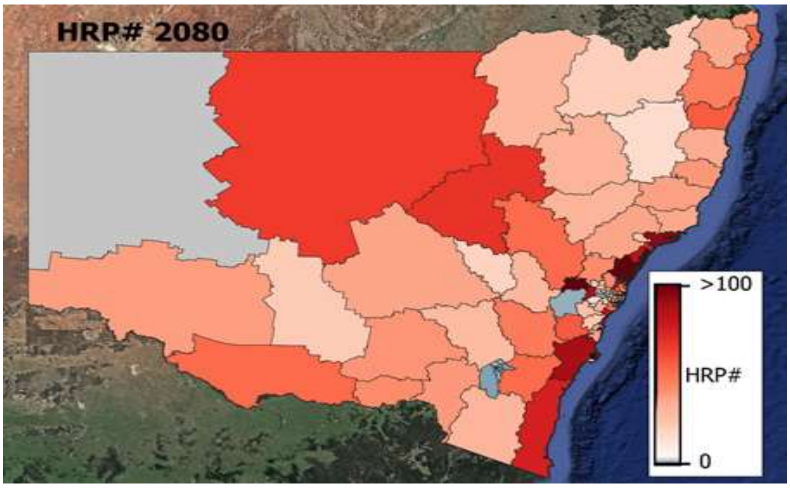

Figure 4. Heatmap of locations with a high number of high-risk assets.

Balance Sheet Implications

3.13 Physical risks to assets have the potential to impact the State's Balance sheet over time.

- Greater risks to the State's physical assets is expected to result in higher insurance costs. Over time this has the potential to trigger the insurance risk SSFR, and result in asset impairments (write downs on the balance sheet). As the number of high risk assets increases, this will likely negatively impact the State's insurance costs and access to external insurance coverage. As a result, greater reliance will be placed on the TMF scheme to cover the State's insurable liabilities impacting both agency budgets and the State's broader fiscal position through the TMF's Net Asset Holding Level Policy (NAHLP) mechanism.
- Shortened lifecycle of infrastructure and degraded operational reliability. If resilience is not inbuilt into infrastructure, more frequent funding will be required to replace such assets. Climate hazards can also result in unbudgeted expenditure through emergency response measures required to alleviate distress situations, as well as the expectation for government to act as 'insurer of last resort' where private assets are under or uninsured.

4 Consultation

4.1 The following entities and individuals were consulted in preparing this report;

DPIE – Nerida Buckley and Christopher Weston

iCare – Nathan Agius

Treasury – Jim Kalotheos

XDI – Karl Mallon

5 Next Steps and Discussion

5.1 Climate risk metrics are different to other more traditional financial metrics in that they are relatively non-responsive to policy changes over the short to medium term, instead highlighting key trends over the long-term. Treasury proposes to report annually to ALCO with updated metrics on physical climate risk to the State's non-financial assets.

5.2 Data and management tools for monitoring climate risk and exposure are continuously developing and improving, and we anticipate that the baseline reporting of XDI outputs will evolve as the existing metrics are improved (e.g. better asset coverage and improved climate and hazard data) or new metrics are developed.

5.3 Given this, and subject to TCorp's deliberations, upcoming areas of focus will include:

- Enhancing reporting on XDI's output: Treasury and DPIE will work with departments, agencies and XDI on how best to address asset specific data limitations. This includes benchmarking XDI's asset coverage with data held by icare on government assets, improving access to reliable climate and hazard data over time, as well as explore the use of new metrics, including XDI's 'Climate Adjusted Value';
- Compare and integrate iCare's insurance data with XDI data: to provide ALCO with a better understanding of the potential insurance risk SSFR implications from non-financial assets considered to have a high exposure to physical climate risk; and
- Developing a dashboard on the progress of risk mitigation actions currently being implemented across government that demonstrates how physical climate risk to assets considered high risk is being managed. This could include metrics such as the proportion of high risk assets for which a risk assessment has been undertaken. Many risk mitigation activities will be delivered under the Climate Risk Resilience Strategic Roadmap, which has been developed to ensure that the NSW Government is better equipped, through strengthened decision-making, to identify, prioritise and act upon climate change risks and opportunities that are anticipated to impact NSW's long-term wellbeing and prosperity.

Attachment A - Climate Risk Metrics Assumptions and Limitations

Assumptions and limitations

The use of certain data inputs and assumptions applied in the analysis means there are some limitations with the use and interpretation of the data. The analysis should be considered indicative and useful to understand at a high-level the distribution of risk across locations and asset types, however we recommend that the use of the data for detailed management and investment decision-making will require further investigations and validation with the relevant risk owners.
Specific limitations include:

- The analysis is based on insurance industry flood data and may not be consistent with government and local government flood studies.
- Climate projections are based on a high emissions scenario.
- Not all government assets have been analysed and therefore results are not representative of all government assets.
- Results exclude non-climate risks such as earthquakes.
- Asset assumptions are applied that will impact on the interpretation within a class of assets.

DPIE is working to improve access to reliable climate and hazard data over time and this is a priority workstream in the Climate Risk and Resilience Strategic Roadmap.

Asset analysis limitations

Detailed asset information is not publicly available and is held by agencies responsible for managing their own risks to their assets. To address this XDI categorises assets into classes based on their function and operations and applies assumptions to the class of assets used to determine the potential vulnerability to hazards through **asset archetypes**. Asset archetypes specify aspects such as height above ground, materials, design specifications and construction types, operational thresholds and value and assumes that most assets that perform the same function have similar composition, structure, materials, and value. This means that the analysis can be considered indicative as it is not based on agency information that would improve the reliability of the analysis.
DPIE has based the initial analysis in the XDI NSW project on a range of public and private assets, and this data has been used to inform the analysis. Only asset data that is in the public domain (including EICU asset data where appropriate) has been analysed. This means that the analysis does not encompass the full asset portfolio of the NSW Government.

Climate change projections

XDI applies climate variables from high emissions scenarios derived from the NSW and ACT Climate Model (NARCliM) including NARCliM 1.0 released in 2014 and NARCliM 1.5 released in 2020. Both NARCliM 1.0 and NARCliM 1.5 apply a high emission scenario, A2 for NARCliM 1.0 and RCP 8.5 for NARCliM 1.5.
(A2 i*s a high emissions scenario form the Third and Fourth IPCC Assessment Reports with projected average warming levels of between 2 –5.4°C*. The Representative Concentration Pathway 8.5 [RCP 8.5] *is a greenhouse gas concentration trajectory adopted by the Fifth PCC Assessment Report with a projected global warming increase of about 5°C*).

Some jurisdictions have updated or adopted new pledges, targets, and policies to reduce greenhouse gas emissions in response to the Paris Agreement. Global policy gaps remain in achieving the Paris Agreement; and even with the current policies the global mean temperature is expected to increase to between 2.4°C and 2.9°C (with a range of 1.9°C and 3.9°C) by 2100[1].
It is anticipated that once available, the analysis will be updated to include NARCliM 2.0 which will include a greater range of climate models of updated climate models to improve

[1] https://climateactiontracker.org/

analysis. NARCliM 2.0 will also provide an opportunity to analyse impacts based on a different emissions scenario as this will include models from RCP 4.5.
Treasury and DPIE is leading the *Climate Risk and Resilience Strategic Roadmap* which has identified actions to be led by DPIE to develop resources to ensure the consistent use of climate data and scenarios for government decision making. This is expected to be completed in 2023.

Attachment B - Climate Risk Metrics Glossary of Terms

Physical Risk
Physical risks resulting from climate change can be event driven (acute) or longer-term shifts (chronic) in climate patterns. Physical risks may have financial implications for organizations, such as direct damage to assets and indirect impacts from supply chain disruption. Organizations' financial performance may also be affected by changes in water availability, sourcing, and quality; food security; and extreme temperature changes affecting organizations' premises, operations, supply chain, transport needs, and employee safety.

Transition Risk
Transitioning to a lower-carbon economy may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change. Depending on the nature, speed, and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organizations.

Technical Insurance Premium (TIP)
This is sometimes referred to as the risk cost and is defined as the Annual Average Loss (AAL) per Representative Asset for all hazard impacts. It helps to understand which assets are likely to cost more (at greater risk). For each asset, TIP is calculated based on the probability of a hazard exceeding the damage threshold of an asset component and the consequential damage costs to each component. Total TIP (TTIP) is the sum of all asset TIPs within the dataset.
TIP = Full replacement cost x elements replacement cost proportion x damage probability

Value-at-Risk (VaR%) and Maximum-to-Date VaR (MVaR%)
Tells us the overall cost of damage and how this is increasing over time. It is the Technical Insurance Premium (TIP) expressed as a percentage of a single asset's replacement cost, specified for a one-year period with no discounting of the TIP or the asset replacement cost.

HRP High-Risk Properties (MVaR greater than 1%).
A representative asset is classed as becoming "High-Risk" if its Maximum-to-Date Value-at-Risk % for a given year exceeds 1.0%. This is based on the USA Federal Emergency Management Agency (FEMA) thresholds for government insurance schemes, which highlight properties in an (historic) 1-in-100 flood zone, also known as "Rating A Zones".

Number of High-Risk Properties (#HRP)
This is the sum of all assets for which the MVAR% is above 1.0% of the replacement cost of the asset in a given year.