Climate Risk and Adaptation Monitoring Template

Introduction

This document provides a template to support implementation, monitoring and evaluation for climate change adaptation projects and strategy. Monitoring and evaluation of Council’s climate risk management practices is essential to support the implementation of Climate Change Risk Assessment and Adaptation Plans. Further information on developing a Monitoring and Evaluation Plan is provided in step 4 of the [*Climate risk ready NSW guide*](https://www.climatechange.environment.nsw.gov.au/sites/default/files/2021-06/NSW%20Climate%20risk%20ready%20guide.pdf).

Development of your Monitoring and Evaluation Plan should consider both the process of adaptation (supporting the implementation of adaptation measures) and the outcomes of adaptation (achieving the intended adaptation objectives).

The current and targeted risk maturity level of your organisation should be considered during the development of the Monitoring and Evaluation Plan. Refer to the [NSW Local Government Climate Readiness Tool](https://www.climatechange.environment.nsw.gov.au/sites/default/files/2023-09/Local%20Government%20Climate%20Readiness%20Tool.xlsx) (definitions table 1a: Climate risk maturity levels – Maturity level definitions and actions to change/improve) for examples of potential outcomes over time. This template provides suggested metrics across each maturity level for your review and revision.

Monitoring and evaluation should be embedded in organisational processes. Opportunities should be sought to seek alignment with reviews of existing corporate risk registers, local government integrated planning and reporting (IP&R) requirements, and other reporting frameworks. It is recommended that an organisation reviews climate change risks every 5 years, at a minimum (DPIE, 2021). Ideally, this template can be used to measure progress on an annual basis.

Proposed metrics can be included in the Climate Change Risk Assessment and Adaptation Plan. To support broader transformative and cultural change, further work may need to be undertaken to develop a theory of change or learning framework (for further information, see Adaptation Scotland (2019) and DELWP (2020)).

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| This document provides:   * a Monitoring and Evaluation Template aligned to the ‘basic’ level of climate risk maturity * a Monitoring and Evaluation Template for maturity levels beyond the basic level of maturity * a list of suggested outcomes and metrics/targets against each maturity level.   Maturity levels are as described in the [Local Government Climate Readiness Tool](https://www.climatechange.environment.nsw.gov.au/sites/default/files/2023-09/Local%20Government%20Climate%20Readiness%20Tool.xlsx) (Definitions table 1a: Climate risk maturity levels).  Text for revision in this template is shown in blue. This text should be developed in consultation with relevant business areas in Council and other stakeholders, where relevant. Some details such as timeframes or measures are highlighted for revision in yellow.  Explanatory text and examples are provided in text boxes like this one. |

Monitoring and Evaluation Template – basic

This Monitoring and Evaluation Plan has been developed to support the implementation of Council’s Climate Risk Assessment and Adaptation Plan. Specific metrics have been identified for monitoring implementation. Progress against these metrics will be reviewed on an annual basis (time period). Council’s Climate Risk Assessment and Adaptation Plan will be revised every 5 years (lifecycle). The [Climate Change Officer/Sustainability Manager/Corporate Risk Manager/other] is responsible for leading monitoring and evaluation, and reporting progress annually.

Outcomes

Council’s desired outcomes from implementation of the Climate Risk Assessment and Adaptation Plan include the following:

* The climate risk assessment team has been identified; the scope has been agreed for initial climate risk assessment for Council operations, assets and services; and the climate risk assessment is complete.
* A climate risk register has been established for a specific major project, with risk owners identified.
* Existing risk assessment tools have been updated to better capture and assess physical climate risks.
* Adaptation actions have been identified and implemented (where low cost).

Metrics and targets

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| The table below provides examples of proposed metrics and targets aligned to a basic climate risk maturity level.  When the Monitoring and Evaluation Plan is developed, Council should document the current baseline against each metric/target and identify the team members responsible for reporting on progress and for implementation. On an annual basis (at least), the status of progress against the metric/target should be updated and evidence provided. This template can also be used to support ongoing monitoring and progress reports. Council may wish to use a simple traffic light system to indicate progress.  Evidence may be a brief summary of progress or could cross-reference other documents or refer to an appendix with further detail. Council may wish to provide an extract from the risk register comprising priority risks, adaptation measures and further information on progress with implementation of each measure.  This template can be adopted and developed as needed for any climate risk maturity level. |

Key

| Metrics and targets | Baseline | Responsibility | Year 1 | | |
| --- | --- | --- | --- | --- | --- |
| Status | | Evidence |
| Suggested metric or target | Example of a current status | Team member responsible for reporting progress/implementation |  | Complete or on track | Brief comment on evidence to support status assessment |
|  | Some progress |
|  | Not started, or stalled |

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| --- | --- | --- | --- | --- |
| Current climate risk management maturity has been assessed | Climate Readiness Tool assessment complete | Corporate risk manager | Complete | Refer to [Local Government Climate Readiness Tool](https://www.climatechange.environment.nsw.gov.au/sites/default/files/2023-09/Local%20Government%20Climate%20Readiness%20Tool.xlsx). Current level of maturity: basic |
| Risks have been mapped against Council’s success criteria, and adaptation measures have been prioritised for implementation | 7 priority risks identified | Corporate risk manager | On track | Complete – refer to XYZ |
| Leadership team has been briefed on the findings of the climate change risk assessment | Pending completion of risk assessment | Corporate risk manager | Complete | Leadership team briefed on XYZ |
| Number of adaptation measures that have been implemented | 12 adaptation measures identified for implementation | Assessment team | Some progress | Cross-reference to risk register or summary of implementation status against each adaptation action |
| Climate change risk assessment team involved in post–hazardous event debriefs | Involved in an  ad hoc manner | Corporate risk manager | On track | Hazard event has triggered review of Council design specifications |
| Number of risks rated as medium, high or extreme has been reduced through implementation of adaptation measures | 1 extreme risk  3 high risks  10 medium risks | Corporate risk manager | Not started | Risk ratings remain the same |

Monitoring and Evaluation Template maturity levels above basic

This Monitoring and Evaluation Plan has been developed to support the implementation of Council’s Climate Risk Assessment and Adaptation Plan. Specific metrics have been identified for monitoring implementation. Progress against these metrics will be reviewed on an annual basis (time period). Council’s Climate Risk Assessment and Adaptation Plan will be revised every 5 years (lifecycle). The [Climate Change Officer/Sustainability Manager/Corporate Risk Manager/other] is responsible for leading monitoring and evaluation, and reporting progress annually.

Outcomes

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| Example outcomes aligned to each maturity level are provided below. Outcomes should integrate and build upon lower levels of maturity, as needed. Council may also wish to adopt objectives relating to maturity levels beyond its current stage of maturity to support growth or recognise areas where Council demonstrates greater maturity.  Two examples of how outcomes included in the Monitoring and Evaluation Plan may integrate and build upon lower levels of maturity for the maturity levels of ‘repeatable’ and ‘systematic’ are provided below.  Maturity levels are as described in the NSW [Local Government Climate Readiness Tool](https://www.climatechange.environment.nsw.gov.au/sites/default/files/2023-09/Local%20Government%20Climate%20Readiness%20Tool.xlsx) (Definitions table 1a: Climate risk maturity levels). |

Example outcomes – repeatable

Council’s desired outcomes from implementation of the Climate Risk Assessment and Adaptation Plan include the following.

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| **Outcome** | **Maturity level** |
| * Climate risk assessment team has been identified; scope has been agreed for initial climate risk assessment for Council operations, assets and services; and climate risk assessment is complete | Basic |
| * A climate risk register has been established for a specific major project, with risk owners identified | Basic |
| * Existing risk assessment tools have been updated to better capture and assess physical climate risks | Basic |
| * A policy has been drafted on how and when climate risk assessments are developed within Council | Repeatable |
| * Triggers for decision making have been identified relating to the policy; broad participation has been initiated across Council in climate risk assessment on a regular basis | Repeatable |
| * Adaptation actions have been identified and implemented | Repeatable |

Example outcomes – systematic

Council’s desired outcomes from the implementation of the Climate Risk Assessment and Adaptation Plan include the following.

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| **Outcome** | **Maturity level** |
| * Climate risk assessment team has been identified; scope has been agreed for initial climate risk assessment for Council operations, assets and services; and climate risk assessment is complete | Basic |
| * A policy has been drafted on how and when climate risk assessments are developed within Council | Repeatable |
| * Triggers for decision making have been identified relating to the policy; broad participation has been initiated across Council in climate risk assessment on a regular basis | Repeatable |
| * Clear and disciplined climate risk management processes, compatible with corporate risk management, are established and proactively managed, with an annual review of implementation of adaptation actions | Systematic |
| * Cost–benefit assessment of adaptation actions has been undertaken, and funding for adaptation actions has been identified | Systematic |

Menu of outcomes – all maturity levels

A menu of outcomes aligned to each maturity level is provided below.

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| Outcome | Maturity level |
| * Climate risk assessment team has been identified; scope has been agreed for initial climate risk assessment for Council operations, assets and services; and climate risk assessment is complete | Basic |
| * A climate risk register has been established for a specific major project, with risk owners identified | Basic |
| * Existing risk assessment tools have been updated to better capture and assess physical climate risks | Basic |
| * Adaptation actions have been identified and implemented (where low cost) | Basic |
| * A policy has been drafted on how and when climate risk assessments are developed within Council | Repeatable |
| * Triggers for decision making have been identified relating to the policy; broad participation has been initiated across Council in climate risk assessment on a regular basis | Repeatable |
| * Adaptation actions have been identified and implemented | Repeatable |
| * Clear and disciplined climate risk management processes, compatible with corporate risk management, are established and proactively managed, with an annual review of implementation of adaptation actions | Systematic |
| * Cost–benefit assessment of adaptation actions has been undertaken, and funding for adaptation actions has been identified | Systematic |
| * A Council-wide adaptation strategy for managing climate risks has been established, prioritising responses to exposed areas and identifying ongoing funding to support implementation of adaptation actions | Embedded |
| * Climate risk and adaptation actions are embedded throughout the IP&R framework and feature in the community strategic plan | Embedded |
| * Engagement with the community has helped inform the climate change risk register and adaptation strategy | Embedded |
| * Climate change risk assessments and adaptation responses consider broader social, economic and environmental resilience; shared management of physical, transition and liability risk; and interdependencies, including engagement with external stakeholders | Advanced |
| * Shared and interdependent risks are being actively managed, including ongoing engagement with external stakeholders | Advanced |
| * Implementation of risk management and adaptation includes community actions | Advanced |
| * Monitoring, learning and reporting on climate risks result in continuous improvement | Advanced |

Metrics and targets

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| When the Monitoring and Evaluation Plan is developed, Council should document the current baseline against each metric/target and identify the team members responsible for reporting on progress and for implementation. On an annual basis (at least), the status of progress against the metric/target should be updated and evidence provided. This template can also be used to support ongoing monitoring and progress reports. Council may wish to use a simple traffic light system to indicate progress.  Evidence may be a brief summary of progress or could cross-reference other documents or refer to an appendix with further detail. Council may wish to provide an extract from the risk register comprising priority risks, adaptation measures and further information on progress with implementation of each measure. |

Key

| Metrics and targets | Baseline | Responsibility | Year 1 | | |
| --- | --- | --- | --- | --- | --- |
| Status | | Evidence |
| Suggested metric or target | Example of a current status | Team member responsible for reporting progress/implementation |  | Complete or on track | Brief comment on evidence to support status assessment |
|  | Some progress |
|  | Not started, or stalled |

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| The tables below provide examples of proposed metrics and targets for levels of maturity beyond a basic maturity level. Metrics and targets should integrate and build upon lower levels of maturity, as needed. Council may also wish to adopt metrics and targets relating to maturity levels beyond its current stage of maturity to support growth or recognise areas where Council demonstrates greater maturity. For example, a Monitoring and Evaluation Plan reflecting a systematic level of maturity may include metrics and targets from the basic, repeatable and systematic levels.  Two examples of how metrics and targets included in the Monitoring and Evaluation Plan may integrate and build upon lower levels of maturity for the maturity levels of repeatable and systematic are provided below. |

Metrics and targets – repeatable

Specific metrics and targets have been identified to monitor implementation. Progress against these metrics will be reviewed on an annual basis. An initial baseline has been established to measure progress over time.

| Metrics and targets | Baseline | Responsibility | Year 1 | | Maturity level |
| --- | --- | --- | --- | --- | --- |
| Status | Evidence |
| Current climate risk management maturity has been assessed | Climate Readiness Tool assessment complete | Corporate risk manager | Complete | Refer to Climate Readiness Tool | Basic |
| Risks have been mapped against Council’s success criteria, and adaptation measures have been prioritised for implementation | 7 priority risks identified | Corporate risk manager | On track | Complete – refer to XYZ | Basic |
| Leadership team has been briefed on the findings of the climate change risk assessment | Pending completion of risk assessment | Corporate risk manager | Complete | Leadership team briefed on XYZ | Basic |
| Number of adaptation measures that have progressed beyond scoping/design/business case stage into implementation | 12 adaptation measures identified for implementation, 3 for feasibility assessment and 1 for scoping | Assessment team | 6 measures implemented. 6 adaptation measures integrated into Council operations. 3 feasibility assessments complete | Cross-reference to risk register or summary of implementation status against each adaptation action | Repeatable |
| Number of risks rated as medium, high or extreme has been reduced through implementation of adaptation measures | 1 extreme risk  3 high risks  10 medium risks | Corporate risk manager | In progress | Risk ratings remain the same, but adaptation measures have been implemented | Basic |
| Existing risk assessment tools have been revised to better capture and assess physical climate risks | Existing tools do not include climate-related risks | Corporate risk manager | Corporate risk register includes overarching climate risk | Refer to corporate risk register | Repeatable |
| Council has developed and implemented a policy for undertaking climate risk assessments | No policy in place | Executive | Internal policy has been approved but not made public | Policy name and date approved | Repeatable |
| Climate change risk assessment team is involved in post–hazardous event debriefs | Involved in an ad hoc manner | Corporate risk manager | On track | Hazard event has triggered review of Council design specifications | Basic |

Metrics and targets – systematic

Specific metrics and targets have been identified to monitor implementation. Progress against these metrics will be reviewed on an annual basis. An initial baseline has been established to measure progress over time.

| Metrics and targets | Baseline | Responsibility | Year 1 | | Maturity level |
| --- | --- | --- | --- | --- | --- |
| Status | Evidence |
| Current climate risk management maturity has been assessed and demonstrates that Council risk management has improved overall | Climate Readiness Tool assessment complete | Corporate risk manager | Complete | Refer to Climate Readiness Tool. Current level of maturity: systematic | Systematic |
| Risks have been mapped against Council’s success criteria, and adaptation measures have been prioritised for implementation | 7 priority risks identified | Corporate risk manager | On track | Complete – refer to XYZ | Basic |
| Leadership team has been briefed on the findings of the climate change risk assessment | Pending completion of risk assessment | Corporate risk manager | Complete | Leadership team briefed on XYZ | Basic |
| Adaptation measures have been prioritised for implementation, and cost–benefit assessment has been undertaken | 12 adaptation measures prioritised for implementation | Assessment team | 6 measures implemented. 6 adaptation measures integrated into Council operations | Cross-reference to risk register/summary of implementation status against each adaptation action | Systematic |
| Funding for implementation of priority adaptation measures has been secured.  Annual expenditure on climate hazard adaptation and management measures is monitored, and annual budget for supporting resources has been established | No funding identified | Executive | Budget secured for  3-year implementation program | Summary of confirmed budget | Systematic |
| Number of risks rated as medium, high or extreme has been reduced through implementation of adaptation measures | 1 extreme risk  3 high risks  10 medium risks | Corporate risk manager | In progress | Risk ratings remain the same, but adaptation measures have been implemented | Basic |
| Existing risk assessment tools have been revised to better capture and assess physical climate risks | Existing tools do not include climate change–related risks | Corporate risk manager | Corporate risk register includes overarching climate risk | Refer to corporate risk register | Repeatable |
| Council resolution has been passed on climate risk assessment and adaptation, and a policy has been developed and implemented | No policy in place | Executive | Complete | Policy name and date approved | Systematic |
| A climate risk management subcommittee (or similar) has been established | Existing informal group established | Assessment team | Complete | Working group formalised | Systematic |
| Climate change risk assessment team involved in post–hazardous event debriefs | Involved in an ad hoc manner | Corporate risk manager | On track | Hazard event has triggered review of Council design specifications | Basic |

Long list of example metrics and targets

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| The table below provides a non-exhaustive list of example potential metrics and targets aligned to a range of maturity, levels. Metrics and targets should integrate and build upon lower levels of maturity, as needed. Council may also wish to adopt metrics and targets relating to maturity levels beyond its current stage of maturity to support growth or recognise areas where Council demonstrates greater maturity. |

| Metrics and targets | Indicative maturity level |
| --- | --- |
| Implementation of adaptation measures | |
| * Current climate risk management maturity has been assessed | Basic |
| * Risks have been mapped against Council’s success criteria, and adaptation measures have been prioritised for implementation | Basic |
| * Leadership team has been briefed on the findings of the climate change risk assessment | Basic |
| * Number of adaptation measures that have been implemented | Basic |
| * Climate change risk assessment team involved in post–hazardous event debriefs | Basic |
| * Number of risks rated as medium, high or extreme has been reduced through implementation of adaptation measures | Basic |
| * Number of adaptation measures that have progressed beyond scoping/design/business case stage into implementation | Repeatable |
| * Existing risk assessment tools have been revised to better capture and assess physical climate risks | Repeatable |
| * Adaptation measures have been prioritised for implementation, and cost–benefit assessment has been undertaken | Systematic |
| * Funding for implementation of priority adaptation measures has been secured | Systematic |
| * Number of risks related to a priority success criterion or climate hazard has been reduced through implementation of adaptation measures (for example, the number of high and extreme risks related to flooding) | Embedded |
| Organisational | |
| * Council has developed and implemented a policy for undertaking climate risk assessments | Repeatable |
| * Council resolution has been passed on climate risk assessment and adaptation | Systematic |
| * Council has adopted a general climate change policy | Systematic |
| * An oversight body (for example, committee, steering group) has been established to oversee implementation of the adaptation plan | Embedded |
| * Climate risk and adaptation measures have been integrated into the community strategic plan and/or IP&R framework and/or other strategic documents | Embedded |
| Engagement | |
| * A climate risk management subcommittee (or similar) has been established | Systematic |
| * Level of community and/or external stakeholder engagement achieved regarding climate risks | Embedded to advanced |
| * Practitioner champions group has been established to support climate risk assessment and management | Embedded |
| * Community engagement forum has been established | Advanced |
| Maturity | |
| * General risk management practices have improved in maturity | All |
| * Climate risk management practices have improved in maturity | All |
| * Completion of the Climate Readiness Tool demonstrates that Council maturity risk management has improved overall | All |
| Process | |
| * Annual expenditure on climate hazard adaptation and management measures is monitored | Systematic |
| * Annual budget for investment in climate adaptation measures and resources has been established | Systematic |
| * Progress is being made to address data gaps identified during the climate risk assessment process | Systematic |
| * Metrics and targets relating to climate change have been integrated into Council executive-level key performance indicators | Advanced |
| Transition and liability risks, and TCFD | |
| * Transition risks have been identified and assessed | Embedded |
| * Liability risks have been identified and assessed (see Climate Readiness Tool, Part 2a, 2.5.5) | Embedded |
| * Maturity of TCFD disclosure has increased | Advanced |
| * Performance has improved within TCFD disclosure pillars of governance, strategy, risk management, and metrics and targets | Advanced |

References

Adaptation Scotland (2019). [Monitoring & evaluation](https://www.adaptationscotland.org.uk/how-adapt/tools-and-resources/monitoring-evaluation)

DELWP (Victorian Department of Environment, Land Water and Planning) (2020). [*Regional Climate Change Adaptation Strategy: Guidance note 2 – Establishing a learning framework*](https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0038/489683/RAS-GN2_Establishing-a-Learning-Framework-.pdf)

DPIE (NSW Department of Planning, Industry and Environment) (2021). [*Climate risk ready NSW guide*](https://climatechange.environment.nsw.gov.au/-/media/NARCLim/Files/Section-4-PDFs/Climate-Risk-Ready/NSW-Climate-risk-ready-guide.pdf)

Hunter Joint Organisation (2021). [Climate Change Integrated Planning and Reporting (IP&R) Package](https://www.hunterjo.com.au/wp-content/uploads/2021/09/AoA-Climate-Change-IPR-Package.pdf), Section 4.3 – Delivery program, and Section 4.4 – Operational plan

NSW [Local Government Climate Readiness Tool](https://www.climatechange.environment.nsw.gov.au/sites/default/files/2023-09/Local%20Government%20Climate%20Readiness%20Tool.xlsx)