

Understanding climate risk: Co-designed applications for local decision making

Climate Narrative Scenarios

Glenelg Hopkins Catchment Management Authority

September, 2025

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Background

According to UTAS's funding agreement with NEMA, the objective of the project is to improve access to climate change information to aid decision making. The UTAS project will do this by developing regionally consistent qualitative climate change scenarios across three localities.

To understand regional climate change hazards, the University of Tasmania (in affiliation with the NESP Climate Systems Hub) has engaged the Glenelg Hopkins CMA (in Victoria) to assess climate change risks for biodiversity, while the ACT assesses climate change risks for fire, heatwave, and smoke. In a separate project, the Huon Valley Council will develop plausible future scenarios of compounding climate events in the context of a locally developed liveability framework.

Each project involved the development and application of locally relevant climate change scenarios. There is an opportunity to compare scientific methods, stakeholder engagement processes, scenario products, what worked well, what could have been done better, and lessons that could inform 'good practice' principles. Each project has been asked by the University of Tasmania to produce a short report (less than 20 pages) on these aspects. The three reports will have a similar structure to facilitate comparison. An independent comparison report, including a broader literature review of climate scenario development and utility, will be published by the NESP Climate Systems Hub.

Glenelg Hopkins CMA were identified as an appropriate project partner through existing networks with the NESP Climate Systems Hub. GHCMA's context in rural Australia promised transferability to other rural contexts, which can be overlooked in assessments. Differing with other project partners being local councils or territory/state governments, the level and type of decision making influence of the region would provide unique learning opportunities. Being primarily focused on catchment management, GHCMA were also eager to focus on impacts of climate change strictly on nature and biodiversity, further contrasting with the usual remit of councils and state governments, which often include other domains such as social or built environment.

Purpose

Glenelg Hopkins CMA was established by the State Government of Victoria in 1997 to manage land and water resources in the southwest region of Victoria, Australia.

Our aim is to inspire partnerships with the people and groups that use the land and water in the region, driving action to achieve improved catchment and land health.

Glenelg Hopkins Catchment Management Authority is the caretaker of river health in the region. It facilitates and carries out works to protect and enhance the quality of water and the condition of rivers as well as broader natural resource management and biodiversity conservation.

Inspired by the book *Working Together to Change the Future Transformative Scenario Planning*, by Adam Kahane, and the work of Transition Town co-founder, Rob Hopkins, the intent was to explore the development of scenarios as a way to bringing together stakeholders to explore transformative change. As such, the development of the scenario was considered a key part of the process and scenarios themselves were not intended as an output for future use.

Project Delivery Team

	Role in project	Title	Agency
Marty Gent	Facilitation and workshop co-design	Biodiversity and Indigenous Partnerships Manager - Land Health & Biodiversity	Glenelg Hopkins CMA
Tim Boyle	Workshop co-design and overall project management	Climate Knowledge Broker	School of Geography, Planning, and Spatial Sciences - University of Tasmania
Nick Earl-Jones	Climate science presentation	Climate Lecturer	University of Tasmania
Ramona Dalla Pozza	Project and workshop support	Climate Knowledge Broker	University of Tasmania/ NESP Climate Systems Hub
Helen Bloustein	Workshop support	Climate Knowledge Broker	NESP Climate Systems Hub/ Victorian DEECA
Sarah Boulter	Overall project sponsor	A/Professor, Climate Change Adaptation	University of Tasmania/ NESP Climate Systems Hub

Project Advisory Group

To support governance and cross-project learning, UTAS established a Project Advisory Group with formal Terms of Reference. This group provided strategic oversight and help coordinate learnings across the three regional projects. Membership included representatives from:

- UTAS
- Carolyn Goonrey, Senior Director, Climate Change Policy - ACT Government
- Glenelg Hopkins Catchment Management Authority
- Commonwealth Department of Climate Change, Energy, the Environment, and Water (DCCEEW)
- National Environmental Science Program – Climate Systems Hub (NESP)

The Advisory Group met in February, April, and June 2025, with a final meeting scheduled for September 2025. These meetings have been instrumental in sharing insights, aligning

methodologies, and identifying opportunities for broader application of scenario-based planning.

From GHCMA, in regular attendance at PAG meetings were:

- Michael Rees - Executive Manager Land Health and Biodiversity
- Marty Gent - Biodiversity and Indigenous Partnerships Manager

Research Ethics

The broader UTAS-led research project, including the GHCMA component, was reviewed and approved by the University of Tasmania Human Research Ethics Committee in January 2025. An amendment to include a participant follow-up survey was subsequently approved in June 2025.

This ethical oversight ensured that all engagement activities were conducted in accordance with best practice principles, including informed consent, participant confidentiality, and respectful inclusion of diverse perspectives.

Co-design process between UTAS and the Glenelg Hopkins CMA

Co-development of project scope between project delivery team and stakeholders

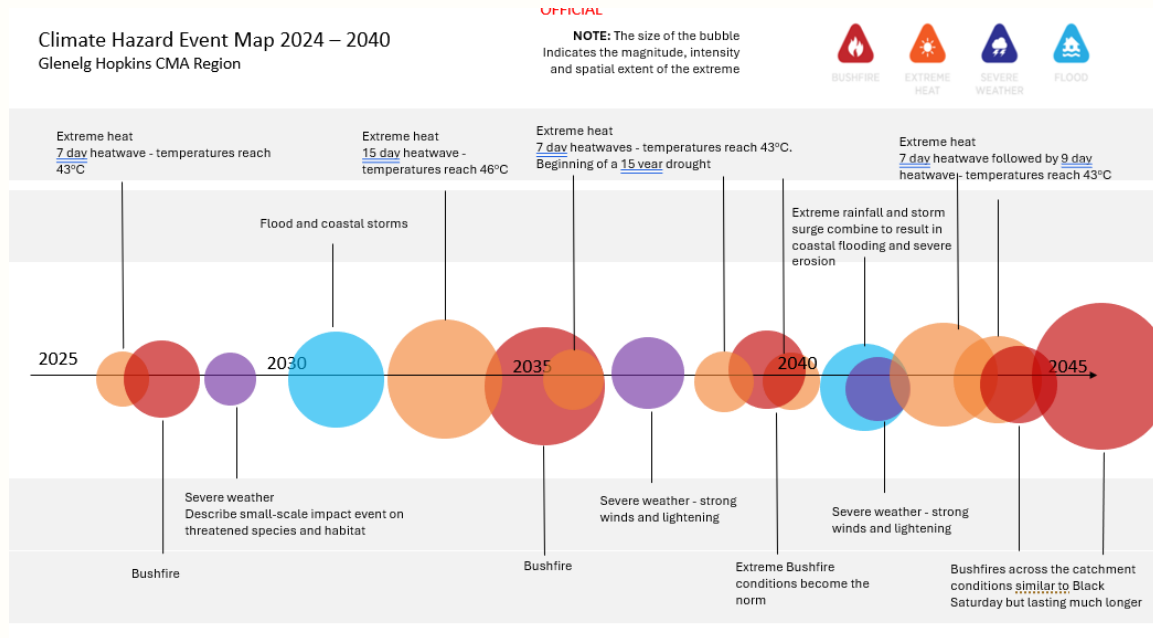
UTAS and GHCMA first met in February 2025 to discuss the project and initial ideas for the workshop. At the time, GHCMA was actively involved in managing and recovering from a significant bushfire in the Grampians/Gariwerd National Park, which borders the catchment. Due to the demands of fire recovery and ongoing drought conditions, both CMA staff and stakeholders faced limited time and capacity. As a result, the project team decided to hold a single, in-person workshop. Travel logistics also influenced this decision, as many stakeholders were unable to commit to multiple days away from their regions.

A previous workshop held approximately 12 months earlier was considered a valuable primer for this new session. That earlier workshop had provided participants with an overview of climate projections and facilitated robust discussions on the impacts of climate change on biodiversity and agricultural natural capital.

Given GHCMA's core focus on catchment and natural resource management, the project team agreed that the workshop and resulting scenarios should specifically concentrate on the impacts of climate change on nature and biodiversity.

Methodology

GHCMA previously conducted a workshop in 2024 to explore future climate hazards, resulting in a visual illustration of plausible future events. This new project aimed to build on that foundation by developing several future scenarios with enhanced usability for strategic planning and risk assessment.



During project team meetings in April 2025, it was agreed that the workshop would be structured in two parts: the first half dedicated to scenario development, and the second half focused on testing those scenarios as decision-making tools. Given the limited timeframe of 2–3 hours for scenario creation, the team introduced a ‘game’ element to facilitate rapid development and incorporate randomisation. This approach allowed participants to bypass assumptions and generate “what if” compound event scenarios, which were then verified for plausibility by facilitators and participants to ensure internal consistency.

Recognising that most strategic plans by GHCMA and Parks Victoria operate in 5- or 10-year blocks, the team selected a scenario timeline extending from the present to 2040. This near-term horizon was chosen to prompt actionable planning and highlight the compounding impacts of current climate hazards, rather than focusing solely on the increasing intensity of single hazards projected for later decades. For example, while heatwaves may be projected to intensify by a certain percentage by 2070, a moderate heatwave compounded by extended drought in 2040 could produce unexpected and severe consequences.

Inspired by the UTAS-developed interactive climate change game *The Heat Is On*, Marty created two tools for the workshop: the 'Wheel of Climate Fortune' and the 'Jar of Despair'. The wheel, divided into slices representing different climate hazards, was spun by participants to randomly assign a major climate event to each year. These tools were trialled in a short session at the statewide Catchment Management Authority conference earlier in 2025.



Conversations between Parks Victoria and GHCMA in April 2025 further highlighted the relevance of locally developed scenarios for strategic planning, particularly in the review of Parks Victoria's Conservation Action Plans (CAPs). Since the Gariwerd/Grampians National Park lies partially within GHCMA's boundaries, the workshop incorporated an exercise using the drafted scenarios to analyse the park's CAP. This activity added a significant decision-making component to the workshop and strengthened the practical application of the scenarios.

Assumptions

The relevance of the RAD Framework and Parks Victoria's Conservation Action Plans (CAPs) was assumed from the outset, given their strategic alignment with the project's goals. However, the project team encountered challenges in identifying clear guidance on how to structure the workshop. While the 'game' element was adapted from a previous UTAS project, intellectual property constraints significantly limited access to detailed instructions or templates.

As a result, the final scenarios developed during the workshop were not rigorous representations of future conditions. They required further refinement post-workshop to transform them into coherent narrative scenarios suitable for strategic use and communication.

Climate Hazards

Climate hazards that were used in the workshop activities were primarily:

- Bushfire
- Storm (it was up to participants to decide on the form, which could be for example)
 - Extreme rain
 - Hail
 - Extreme wind
- Flooding
- Drought
- Heatwave (of varying duration and frequency)

Additional theory and/or frameworks used

It was identified in April 2025 in discussions between GHCMA and Parks Victoria that there were alignments between this project and the works of Parks Victoria.

The RAD framework

The RAD framework is a strategic model used in conservation and land management to help decision-makers respond to ecological change, especially under climate change and other large-scale pressures.

The RAD framework is being integrated into Parks Victoria's strategic conservation planning, particularly through their Conservation Action Plans (CAPs). Parks Victoria is applying the RAD framework to guide conservation efforts across different geographic scales ([national-parks-act-annual-report-2023-24.pdf](#)).

The RAD framework helps managers decide how to respond to ecological changes by offering three pathways:

1. Resist

- a. **Goal:** Maintain current or historical conditions.
- b. **Example:** Controlling invasive species to preserve native ecosystems.

2. Accept

- a. **Goal:** Allow change to occur without intervention.
- b. **Example:** Letting a wetland naturally transition to a different ecosystem due to sea-level rise.

3. Direct

- a. **Goal:** Actively guide change toward a desired future condition.
- b. **Example:** Replanting climate-resilient species to maintain biodiversity.

In Parks Victoria's **Conservation Action Plans (CAPs)**, the RAD framework is used to:

- **Assess ecological trends** (e.g., species decline, habitat shifts).
- **Evaluate management options** under climate change scenarios.
- **Prioritize actions** that align with long-term conservation goals.
- **Adaptively manage** protected areas by choosing when to resist, accept, or direct change.

This approach is especially useful in dynamic environments like coastal zones, alpine areas, and fire-prone landscapes—many of which are found in Victoria.

Data Sources

UTAS climate scientist Dr Nick Earl-Jones gave a presentation on 'what's to come' regarding climate in the region according to the projections. This included increasing dry spells, heavier rain events, and equilibrium vs transient climates.

Stakeholder Engagement

Stakeholder identification

Stakeholders were identified through existing local networks. Stakeholders were engaged primarily via email invitation, and the workshop was promoted at various relevant meetings in the lead up.

Workshops

Agenda/Program/Schedule

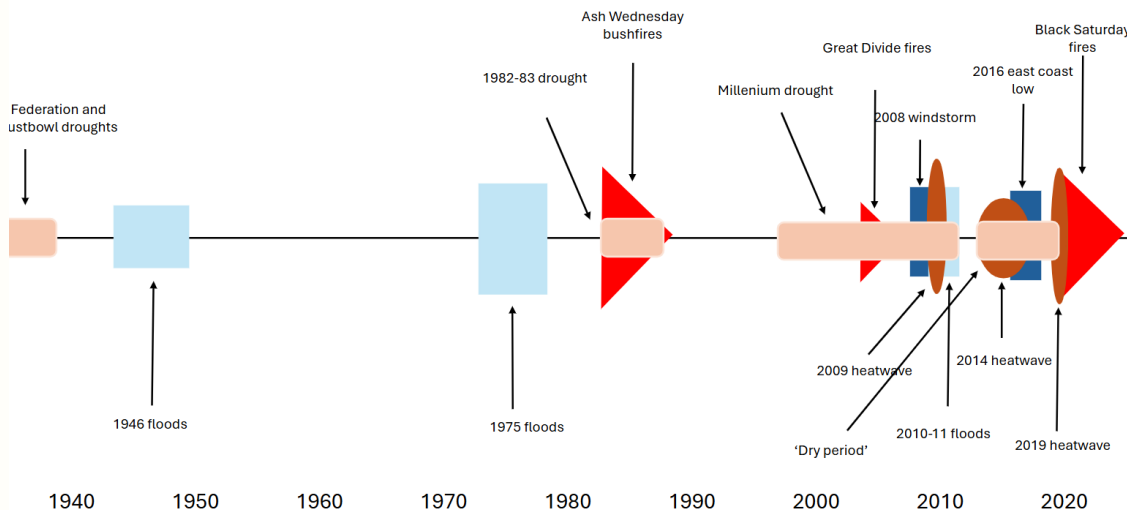
See appendix.

Approx. number of attendees: 20-30

Methodology for developing scenarios within the workshop

The first activity in the workshop was to qualitatively chart historical events in participant memory. This was completed as a whole room and lead by the facilitator. The timeline was as far back as participants were willing to go, approx. 1900. This gave participants a baseline understanding of the frequency and impact of significant climate events on the region.

Historical precedent for extreme events



To facilitate rapid scenario development within the constraints of a single-day workshop, the project team introduced two interactive tools: the Climate Wheel of Fortune and the jar of despair. The Climate Wheel of Fortune, inspired by common game mechanics and exemplified in the *Adaptania* climate game developed by Chloe Lucas and other at UTAS, was designed to introduce a level of randomisation that could simulate compounding climate impacts. Participants would spin the wheel—divided into segments representing various climate hazards—and the resulting hazard would be assigned to a specific year in the scenario timeline.

Complementing this, the Container of Discontent added an additional layer of unpredictability by incorporating other social and ecological stressors. These included pandemics, disease outbreaks, pest infestations, and broader ecological collapse. Together, these tools enabled participants to quickly generate plausible and complex scenarios, encouraging creative thinking and highlighting the interconnected nature of climate and ecological risks.

Post-workshop consolidation

During the workshops the project team took notes of conversation points and pictures of the activities. They also collected the worksheets from the participants used as part of the activities.

These sources of information were then digitised using the Microsoft suite of software. MS powerpoint was used to copy the visual representation of the scenarios, and Exel and Word for the written and verbal elements.

This information was then drafted into narrative format to improve its readability and accessibility. Several versions of the scenarios were developed of varying length and detail, to suit future amendment and use in future tools.

Four scenarios were developed in the workshop and these four were preserved in number during consolidation as they each provided a useful picture of a plausible future.

See appendix for draft scenarios.

Evaluation

A participant survey was conducted after the workshops and included questions to gather information on participant experience of the workshop and project. Initially, a survey was not planned, but due to the advice from the Project Advisory Group on greater need to understand stakeholder perspectives, it was decided to hold a follow-up survey. Ideally, we would have included a baseline survey before the workshop as well, but this was not able to be done due to the timeframe, competing tasks, and requirement for UTAS ethics committee review.

The narrative and visual scenarios were finalised post workshop by the project team. It was the project team who was responsible for accepting the final level of these outputs.

Stakeholder Survey

An online questionnaire tool was used to gather further information from participants on their baseline knowledge of scenario development, experience of workshop, and feedback on available climate information for decision-making. This survey data has provided much of the information of stakeholder perspectives in the 'stakeholder engagement' section of this report.

See appendix for survey questionnaire

Deliverables

Draft scenarios

Include in appendix

Scenario application

The scenarios and workshop materials will be retained as an internal resource by GHCMA, with the potential for further development should future funding opportunities arise. Following the workshop, the UTAS project team refined the draft scenarios into more structured narratives and shared them with GHCMA for review and approval.

Lessons Learned and recommendations for ‘good practice’

Lessons learned

- **Limited Scope of Scenarios:** While scenario planning is a valuable tool, it has limitations in identifying potential opportunities that may arise from climate change. The focus often leans toward risk and impact rather than adaptive possibilities.
- **Tone and Framing Matter:** One participant noted that the scenario-building exercise felt overly pessimistic, portraying a “doom and gloom” future. In contrast, the RAD framework offered a more empowering perspective by introducing pathways for proactive response and control.
- **Value of Randomisation:** Incorporating randomised elements—such as the Climate Wheel of Fortune—was effective in prompting consideration of compounding impacts and unexpected event combinations.
- **Replicability and Cost-Effectiveness:** The single-day workshop format proved to be easily replicable and low-cost, making it a practical model for future training and engagement activities.
- **Limitations of Single-Day Format:** While efficient, a single workshop does not produce highly rigorous scenarios suitable for long-term strategic use. However, its simplicity allows for periodic repetition as a staff training tool.
- **Facilitator–Participant Balance:** A balance must be struck between facilitator control and participant agency. Too much structure can limit creativity, while too little may reduce the training value.
- **Process as Outcome:** The co-development of scenarios was found to be as valuable as the final outputs. The collaborative process fostered shared understanding and built capacity among participants.
- **Scientific Gaps in Randomisation:** The randomisation approach did not incorporate scientific modelling of increasing probabilities for compound events, which may limit its

application. However, when compared to recent past events experienced participants agreed that each scenario felt plausible.

‘Good practice’ recommendations (advice to others in similar processes)

- **Clarify Your Objectives**

Understand the purpose of your scenario planning process from the outset. Are you aiming to develop a polished scenario resource or tool? Or is your goal to train and upskill staff in decision-making, climate adaptation, or futures thinking?

- **Define the Scope Clearly**

Be specific about the spatial, temporal, and thematic boundaries of your scenarios. Clear scope definition helps ensure relevance and usability for your target audience.

- **Integrate Real Decision-Making Frameworks**

Embed concrete and context-relevant decision-making frameworks—such as the RAD framework—into the scenario development process. This enhances the practical utility of scenarios and supports alignment with existing strategic planning tools.

Traditional Custodian Engagement

All Registered Aboriginal Parties (RAP) in the region were invited to participate in the project via attendance at the workshop including:

- Gunditj Mirring Traditional Owners Aboriginal Corporation
- Wadawarrung Traditional Owners Aboriginal Corporation
- Barengi Gadjin Land Council
- Eastern Marr Aboriginal Corporation

The Eastern Maar Aboriginal Corporation was the only group to send a representative. The same level of engagement was requested as from all other stakeholders/participants.

Eastern Maar Aboriginal Corporation (EMAC) is the professional organisation that represents the Eastern Maar People of South West Victoria and manages their Native Title rights and Interests.

Appendices

Stakeholder List/Representation

Workshop attendee representation

An attendee list was not recorded on the day, but representatives were from the following agencies:

- Department of Energy, Environment, and Climate Action
- Parks Victoria
- Glenelg Shire Council
- Warrnambool City Council
- Glenelg Hopkins Catchment Management Authority
- Wimmera Catchment Management Authority
- Eastern Maar Aboriginal Corporation
- Nature Glenelg Trust

Copy of Draft Scenarios

These scenarios are in the process of being professionally graphically designed.

Hypothetical Climate-Ecological Scenarios for Grampians National Park (2026–2040)

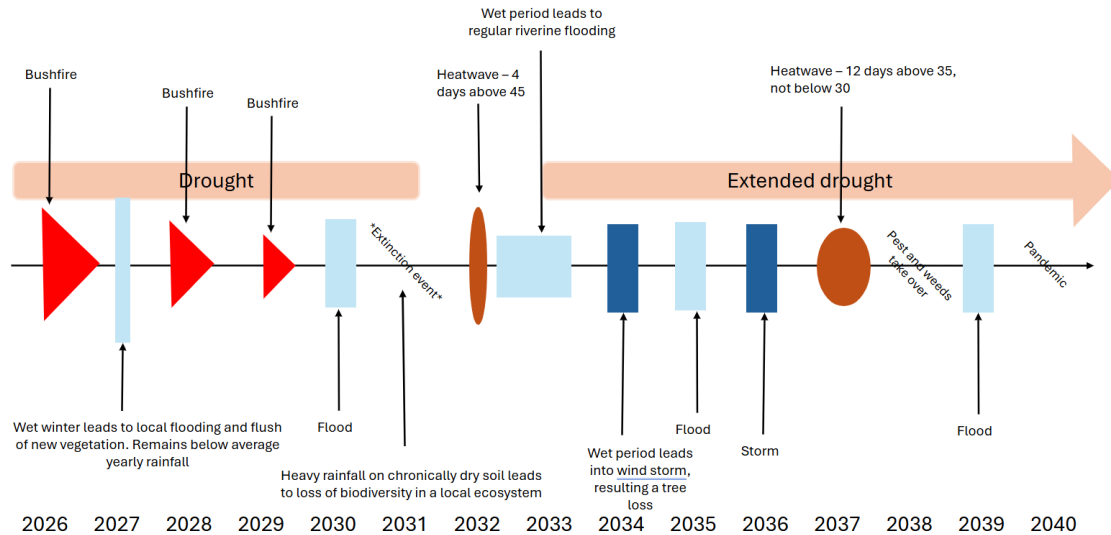
Grampians National Park (Gariwerd), a culturally and ecologically significant landscape in Western Victoria, is projected to face a range of compounding climate-driven scenarios over the next 15 years. These scenarios illustrate how interacting disturbances—drought, fire, heatwaves, storms, invasive species, and ecological collapse—may reshape ecosystems and challenge current conservation paradigms. Each scenario presents a distinct trajectory of environmental stress and management response, offering insights into adaptive strategies for sustaining ecological function and biodiversity.

These scenarios are the outcome of a workshop facilitated by the Glenelg Hopkins Catchment Management Authority and the University of Tasmania in May 2025. These scenarios were created by workshop participants. Using Parks Victoria’s RAD Framework [\[link\]](#), the participants explored potential management strategies to adapt to the changing climate within each scenario.

Scenario 1: Scarily Plausible

This scenario unfolds as a slow-building but relentless ecological crisis driven by extended drought and punctuated by extreme weather events. The first six years are dominated by persistent drought, which desiccates soils, reduces stream flows, and stresses vegetation. In the second year, an anomalous rainfall event triggers a burst of vegetation growth, which, under continued dry conditions, becomes a volatile fuel load. This leads to a series of intense bushfires that sweep through the park, culminating in the extinction of the rock wallaby—a species already vulnerable due to habitat fragmentation and predation.

Scenario 1- Scarily Plausible



Following a brief climatic respite, the region enters a second prolonged drought. During this period, a combination of heatwaves and sudden rainfall events destabilizes slopes, triggering landslides that destroy key riparian corridors and aquatic habitats. These events mark the beginning of a broader ecological unraveling. As the landscape becomes increasingly fragmented, invasive species such as weeds and feral animals proliferate in disturbed areas, further displacing native flora and fauna.

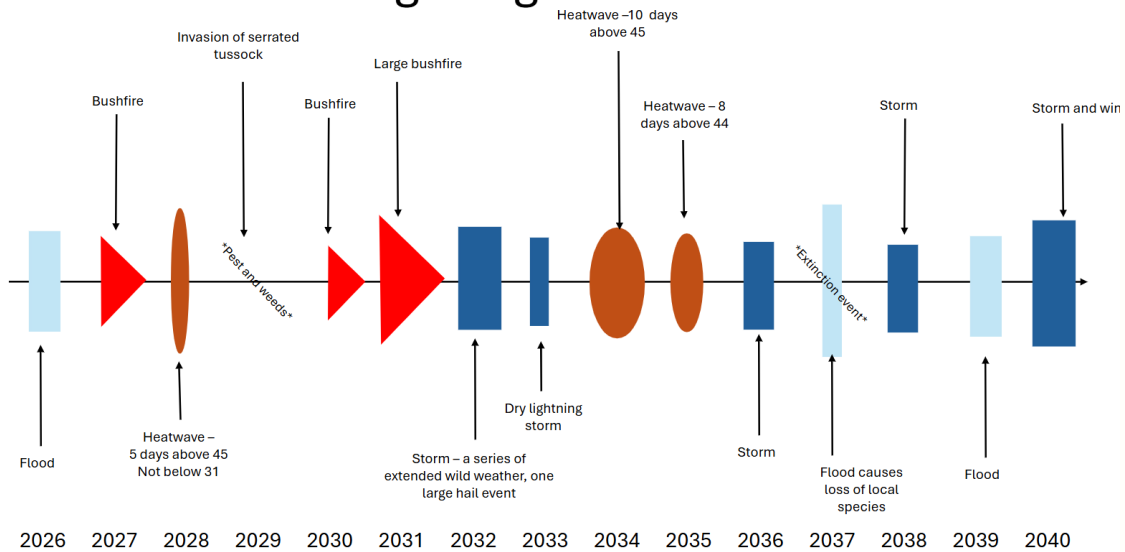
By the final years, the compounding effects of fire, drought, and invasive species have led to widespread ecological collapse. The loss of ecosystem services—such as water filtration, pollination, and soil stability—begins to affect human communities. A pandemic emerges in this context of environmental stress, highlighting the interconnectedness of ecological and public health systems. The landscape is left in a degraded state, with isolated refugia struggling to maintain biodiversity.

Scenario 2: Bad to Getting Worse

This scenario is defined by a rapid escalation of extreme events and ecological degradation. The early years are marked by a series of intense storms, fires, and heatwaves, including a five-day heatwave that causes widespread mortality among

native fauna. Invasive species, particularly aggressive weeds like serrated tussock, begin to dominate the landscape, outcompeting native vegetation and altering fire regimes.

Scenario 2 – Bad to getting worse



As the decade progresses, the frequency and intensity of extreme events increase. Dry lightning storms ignite fires in already stressed ecosystems, while prolonged heatwaves—some lasting up to ten days—further weaken vegetation and wildlife. Soil erosion becomes a major issue, particularly following storm and flood events that wash away topsoil and nutrients, leaving the land less capable of supporting agriculture or native vegetation.

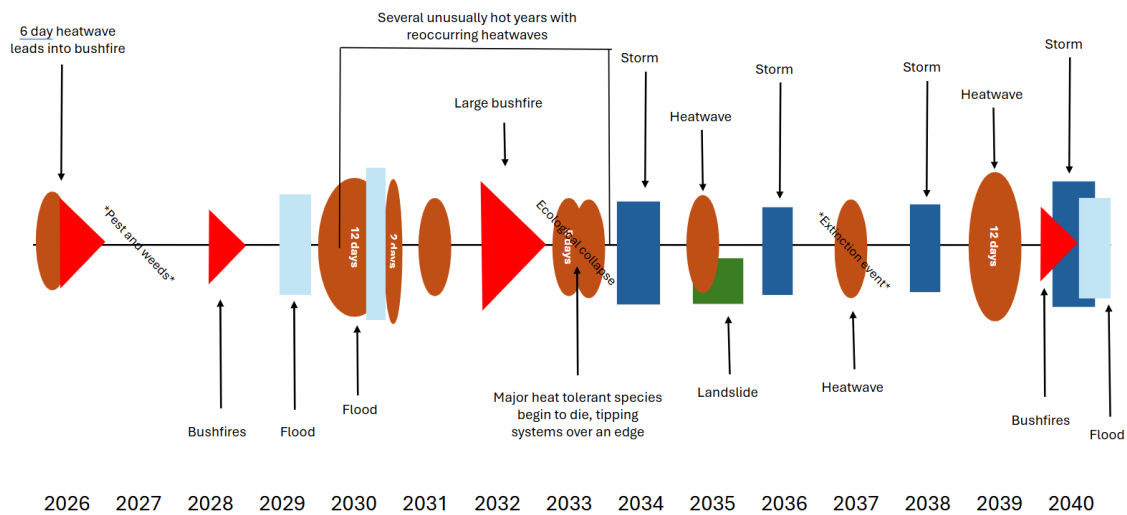
The ecological impacts are mirrored by socio-economic decline. Agricultural productivity drops, and conservation resources are diverted to emergency response and human welfare. Rural communities face depopulation, and emergency services become overstretched. Infrastructure failures, including power outages during heatwaves, exacerbate public health risks. By the end of the scenario, the extinction of key species such as the Brush-tailed Rock-wallaby and the regional collapse of Brolga populations signal a profound loss of ecological integrity.

Scenario 3: Oscillating Extremes

This scenario presents a landscape caught in a cycle of climatic whiplash—alternating between extreme heat, intense rainfall, and violent storms. The result is a fragmented ecological mosaic, with some areas temporarily recovering while

others degrade further. The scenario begins with widespread fire, followed by a surge in invasive pests and weeds. These

Scenario 3 – Oscillating extremes

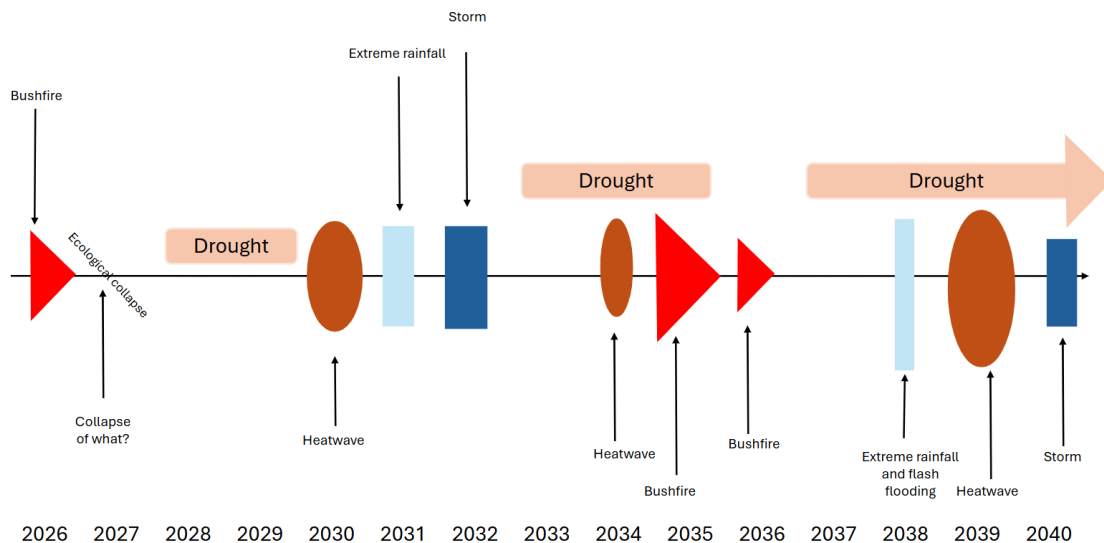


disturbances are compounded by a series of heatwaves, some lasting over 12 days, which stress both flora and fauna.

Flood events provide temporary relief but also bring new challenges, such as erosion, sedimentation, and the spread of pathogens. The landscape becomes increasingly unstable, with landslides and localized extinctions occurring in areas where cumulative stress exceeds ecological thresholds. Despite the presence of unburnt refugia, these areas are under constant pressure from surrounding degraded zones.

By the final years, the region experiences a full ecological collapse in several systems. The persistence of extreme heat, combined with storm damage and invasive species, overwhelms the capacity of ecosystems to recover. The landscape is left as a patchwork of degraded and semi-functional habitats, with biodiversity confined to isolated pockets. The scenario underscores the importance of spatial heterogeneity and the role of remnant patches in buffering against widespread collapse.

Scenario 4 – A series of unfortunate events



Scenario 4: Series of Unfortunate Events

This scenario begins with a catastrophic fire season that devastates riparian and wetland ecosystems. The following year, these systems collapse due to the spatial and temporal overlap of fire, drought, and heatwave events. Key drought refuges are lost, and stream flows shift from permanent to ephemeral, and eventually to episodic, undermining the ecological and hydrological stability of the region.

As the drought deepens, the landscape becomes increasingly arid. Vegetation dries out, soils become hydrophobic, and wildlife populations decline. A sudden and intense spring rainfall event causes widespread flooding, leading to sedimentation, blackwater events, and the destruction of recovering vegetation. The flood temporarily refills water storages but also shifts recovery funding away from drought response, creating a policy and resource vacuum.

A massive thunderstorm in the following summer causes extensive damage to infrastructure and vegetation. The cumulative stress of these events leads to social fragmentation, with communities shrinking and becoming more isolated. The rise of fringe movements and declining trust in institutions reflect the broader societal impacts of prolonged environmental hardship.

By the final years, the region is locked in a persistent drought, punctuated by occasional extreme rainfall events that are insufficient to reverse ecological decline. Agricultural systems collapse, and land use shifts dramatically. The ecosystems of the Grampians are fundamentally altered, with many species lost

and ecological functions severely impaired. The scenario ends not with a single catastrophic event, but with the slow erosion of resilience across ecological and human systems.

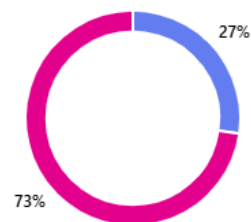


Post-workshop survey results

1. Before the workshop on the 22nd May 2025, 'How to stop being surprised by unprecedented weather and support bio diversity', had you attended training or other events developing future climate scenarios?

[More details](#)

● Yes 3
● No 8

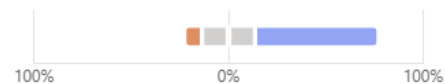


2. What was your level of understanding of the foundational subject matter in the scenario workshops? (E.g. scenario building, futures-thinking/foresight, climate science, adaptation, etc.)

[More details](#)

● Very poor ● Somewhat poor ● Neutral ● Somewhat good ● Very good

Level of understanding

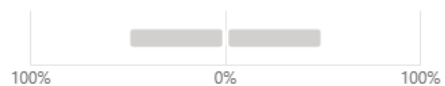


3. For the purposes of the climate scenarios workshop, do you think there was adequate introduction of background subject matter?

[More details](#)

● Not enough ● Almost enough ● Perfect ● Bit too much ● Way too much

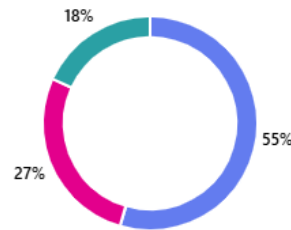
Subject matter intro



4. Has your agency/area of work previously undertaken a climate risk assessment?

[More details](#)

Yes	6
No	3
Unsure	2



5. If yes, were narrative climate scenarios used?

[More details](#)

Yes	1
No	5
Maybe	1
Other	0

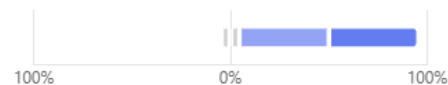


6. Has your participation in these workshops improved your understanding of the potential impacts of climate change (including climate hazards, exposure, vulnerability, and compounding impacts) on the work of your agency/area?

[More details](#)

Not at all No really Neutral Yes, a bit Quite a lot

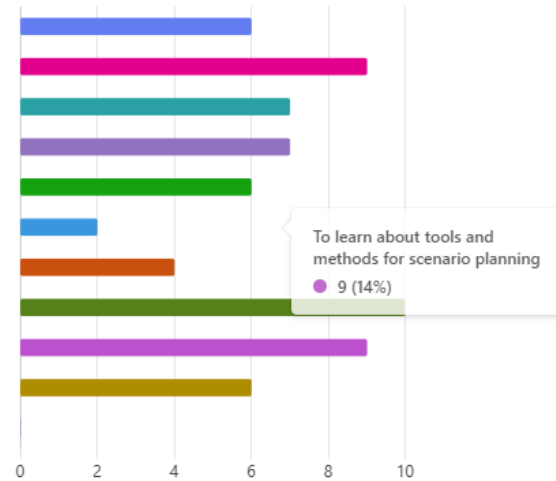
Improvement of understanding



7. Why did you attend the workshop(s) on behalf of your area of work? Check all that apply:

[More details](#)

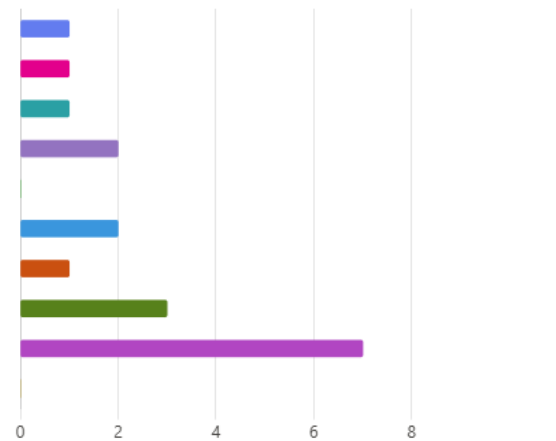
- To explore how climate scenarios could inform our strategic planning line learning... 6
- To build internal capability in climate adaptation and futures thinking 9
- To represent my team in cross-agency collaboration 7
- To better understand climate risks relevant to our work 7
- To contribute to the co-development of climate scenarios 6
- To align our work with local climate policy and planning 2
- To gather insights for an upcoming climate risk assessment 4
- To network with other agencies and share knowledge 10
- To learn about tools and methods for scenario planning 9
- To support our team's climate resilience initiatives 6
- Other (specify in final section) 0



8. How could we have better included you in the co-development of the project and workshops? Check all that apply:

[More details](#)

- More involvement earlier in the project design phase 1
- Opportunities to contribute to the workshop agenda 1
- Follow up involvement in drafting or refining the climate scenarios 1
- A clearer explanation of how our input would be used 2
- More time allocated for discussion and feedback during workshops 0
- Opportunities to review and comment on materials before workshops 2
- More tailored engagement relevant to our sector or area of work 1
- Greater clarity on the goals and expected outcomes of the project 3
- I think the level of co-development was appropriate 7
- Other (specify in final section) 0

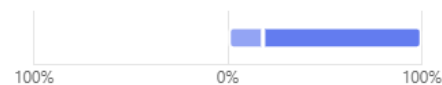


9. Did you find the workshops useful as a training exercise in scenario planning/building/climate futures thinking?

[More details](#)

- Not very useful
- Somewhat useful
- Neutral
- A bit useful
- Very useful

Useful as training?



10. Do you consider scenario planning to be an important tool in your area of work? If yes, please explain how you currently use climate scenario planning in your work, or how you envision using it in the future?

[More details](#)

11

Responses

Latest Responses

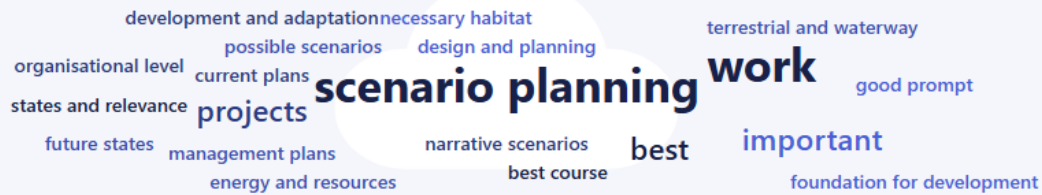
"Yes, to help consider all possible scenarios and compounding impacts. I hav... "

"Yes, but uncertain about what we can do"

"I do not work directly in this this space"

...

3 respondents (27%) answered scenario planning for this question.



Word cloud terms: development and adaptation, necessary habitat, possible scenarios, design and planning, terrestrial and waterway, organisational level, current plans, scenario planning, work, good prompt, states and relevance, projects, future states, management plans, narrative scenarios, best, important, energy and resources, best course, foundation for development.

11. What kind of climate information do you feel would most help to inform your work and/or decision making?

Consider: format, qualitative vs quantitative, scenario-based, scale, event-based, compounding impacts, non-climate drivers of change, spatial and temporal detail, extreme/worst case scenarios, target audiences, etc

[More details](#)

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Responses

Latest Responses

"Informed data like we received on the day. Easy to follow, short format, mix ... "

"event-based, compounding impacts, non-climate drivers of change, spatial a..."

"I find it is useful to have a clear visual presentation for groups I work with. T..."

...

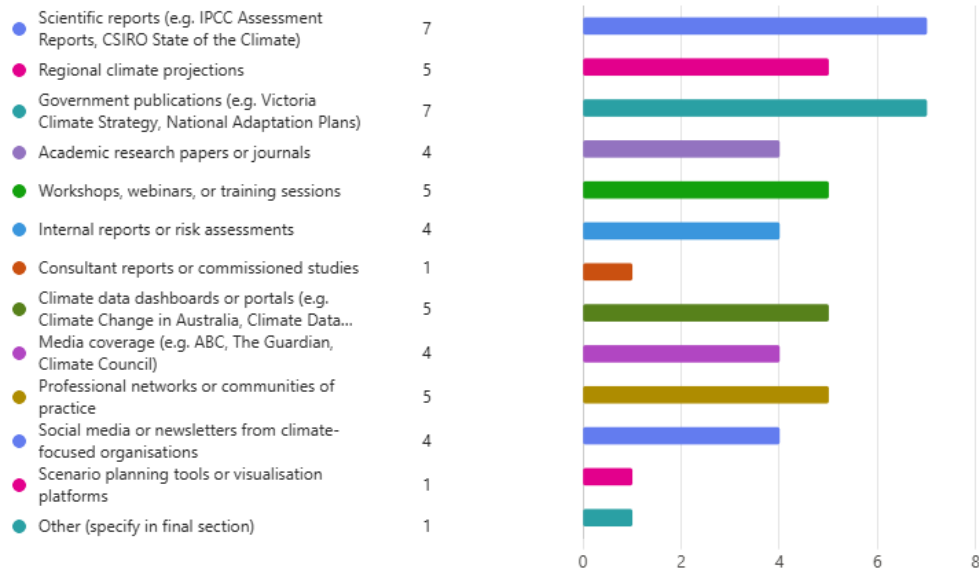
7 respondents (64%) answered impacts for this question.



Word cloud terms: precedents and their impacts, use change, drivers of change, projection impacts, temporal, change information, collective impact, climate drivers, impacts, detail, non, impacts such as Covid, presentation for groups, climate information, Spatial, climate projection, target audience, impact on the habitat, climate-change.

12. What forms of climate information do you primarily engage with? Check all that apply:

[More details](#)



13. Any other feedback?

[More details](#)

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Responses

Latest Responses

"This was a very informative and engaging workshop. The scenario activity w... "

4 respondents (67%) answered workshop for this question.

workshop

Workshop insight, scenario activity, vital information, important topic, climate change, good facilitation, important, great atmosphere, Community response, strange term, local and grass, Great workshop, beginning of the workshop, levels, large role, breadth of information, change action, regions, CMA to compile

Copy of workshop agenda

Workshop - How to Stop Being Surprised by Unprecedented Weather

Location: [Hamilton Institute of Rural Learning \(Hamilton, Victoria\)](#)

Date and time: **22 May 2025, 930am to 430pm**

Summary:

The first half of the workshop will explore the impacts of past climate driven events and natural disasters (e.g. bushfire, flood), and the implications of possible future climate event scenarios, including plausible ways they may compound under climate change futures.

After lunch we will explore what these events and scenarios mean for current strategy and planning using the RAD framework and the Gariwerd/Grampian's Conservation Action Plan as examples, with the intention that participants can replicate with their own strategic/planning documents as appropriate.

This workshop is part of a broader research project the University of Tasmania are undertaking in best practice principles for developing future climate scenarios.

Facilitator: Marty Gent

Workshop Agenda	Responsible person	Duration	Time
Welcome & acknowledgement of country	Marty	5 minutes	930-945
Introduction Workshop overview UTAS project overview	Marty Marty Tim	10 minutes	

Activity 1 - Exploring past events Description: Working in groups, participants will explore the impacts of example events from local history. E.g. • Black Friday 1939 • Ash Wednesday 1983 • Millennium drought 1997-2009 • Cobrico Swamp and Saint Patrick's Day fires 2018 • Crawford River Fires and Floods 2020 • Floods 2022/23 • Casterton Hail Storm 2024 • Grampians and Budj Bim fires 2024/2025 • SW vic storms 2025 Instructions: 1. Prepopulate the timelines with past events using the coloured paper 2. Groups chart the impacts and response measures undertaken 3. Prompting questions a. What happened? b. How did we respond? c. What changed after the events? 4. Report back to the room Materials: • Coloured paper, scissors, markers, blu-tac • Large timeline paper blue-taced to wall		30 minute s	945- 101 5
<i>Break</i> 		15 minute s	101 5- 103 0
Activity 2 - Building future climate scenarios and exploring their use in planning (2040 or 2050) Presentation: future climate projections for the area Description: Using the climate information presented, participants will create up to four event-based future climate scenarios. Each group creates one scenario. Instructions:	Marty Nick	90 minute s	103 0- 120 0

1. Marty will attach a timeline from present to 2040 extending the past event timeline. 2. Within each group take turns spinning the 'wheel of climate fortune' to be given a type of event (e.g. storm, flood, bushfire etc) 3. One spin per year 4. Groups cut out the shapes from coloured paper and stick onto the wall-timeline, working from present to future. 5. Continue until the timelines are complete. 6. Groups then can alter the scenario to their liking 7. Discuss scenarios – likelihood and usefulness, make changes as appropriate 8. Groups to summarise their scenario by giving it a title. 9. Lead discussion about observations and reflections with whole room and make changes as appropriate. Materials: • Large sheets of paper • Markers • Coloured paper • Scissors • Blu-tac, sticky tape • Wheel-of-climate-fortune			
<i>Lunch</i>		60 minute s	120 0- 130 0
Activity 3 – Climate scenarios and the RAD framework Glenelg Hopkins  CMA Presentation/introduction to RAD framework 5 Minutes Description: The scenarios developed in activity 2 will be used to assess the appropriate RAD response using the below table template. Quick ice breaker activity – Groups invent their own analogy Instructions:	Marty Gen	90 minute s 5 minute s 10 minute s	130 0- 143 0

- Groups complete the table for Parks Vic Key Ecological Attributes for each period. Materials: • Print out of the table templates from Gen • Large sheets of paper for notes and/or to copy table to larger sheet • Markers			
<i>Break</i>		<i>15 minute s</i>	<i>143 0- 144 5</i>
Activity 4 – Testing other outcomes/actions Description: Groups analyse the framework they have brought using the RAD framework template. Instructions: - Using elements of planning that participants were requested to bring, complete the tables in the same manner as previous activity. - Materials: • Use same as for activity 3	Marty	30 minute s	144 5- 151 5
Activity 5 – Back casting – What do we need to do now? Description: Taking inspiration from What Is to What If by Rob Hopkins – we will do a 10 to 15-minute reflection on ‘idealised world’ and what we need to do to get there from the points in the previous activities. Instructions: • Participants are to close eyes • Imagine the world in 2040 that resembles all the things you’ve been working so hard for over the previous 15 years.	Marty	30 minute s	151 5- 161 5

• What does it look like? What are the natural things, the social/cultural elements, the organisational elements, the work elements. • 2 minutes silence for reflection. • Participants feedback thoughts to room. • Facilitator to lead discussion in what we can do over next 15 years to get to the ideal future. • One constructive step from participants. Materials: - None			
Wrap up and close Next steps - For UTAS/NESP	Marty Tim	10 minute s	161 5- 162 5

Workshop photos



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