

Entered by Board Secretary

## Tier 1 Policy – Climate Change Adaptation Policy

For decision:  For noting:

### Te tūtohunga / Recommendation

That the Auckland Transport Board (board):

- a) approve the Climate Change Adaptation Policy (policy)

### Te whakarāpopototanga matua / Executive summary

1. The Finance and Assurance Committee (committee) has endorsed the Climate Adaptation Policy (the policy) for approval by the board.
2. Key aspects of the policy include:
  - a. Translation of the committee-endorsed climate-related risk appetite into operational business-as-usual activities.
  - b. Requiring future climatic conditions be used (rather than past climatic conditions).
  - c. Requiring the environmental impacts of activities to be considered as well as emission levels. Identification of the adaptation parameters and methodology that must be applied, based on development or activity type, to ensure operational activities are suitable given the likely climate conditions over the lifespan of the asset.
  - d. Specification of a list of technical reference documents for staff and contractors to use.
3. While it is an operational policy, providing technical guidance to staff, it currently requires board approval in recognition of the significance of climate risks (generally).
4. This policy will provide the business with appropriate technical reference documents to enable the commencement of adaptation planning and related workstreams responding to climate change.

Entered by Board Secretary

## Ngā tuhinga ō mua / Previous deliberations

Date	Report Title	Key Outcomes
July 2021 Committee	Assessment of key physical climate risks	Outlined the high-level assessment and prioritisation of climate change risks to AT's assets, services, customers, and staff.
May 2022 Committee	Climate related risk appetite	Discussed the estimated physical impacts of climate change; noted the continuation of a cautious risk appetite for climate risk and noted subcategories of climate change risk.
November 2022 Committee	Climate Adaptation Policy	The committee endorsed the policy for approval by the board.

## Te horopaki me te tīaroaro rautaki / Context and strategic alignment

5. In 2019, Auckland Transport (AT) identified climate change as a key organisation wide risk. The risk is currently expressed as: *"failure to appropriately respond to or prepare for the impacts of climate change including lack of planning for network resilience."*
6. Climate change risks are separated into two common categories: physical risks and transition risks. Work presented to the board to date has focused on physical risks. Work on transition risks was presented to the committee in the November 2022 meeting, and the risk appetite for transition risk will be discussed by the committee in January 2023.
7. In August 2022, the Government released the National Adaptation Plan which set out a range of policies and projects to adapt to climate related risks. The policy aligns with this.

## Ngā matapakinga me ngā tātaritanga / Discussion and analysis

8. The policy includes the following key aspects:
  - a. Translation of the committee-endorsed climate-related risk appetite into operational business-as-usual activities.
  - b. Requiring future climatic conditions be used (rather than past climatic conditions).
  - c. Requiring the environmental impacts of activities to be considered, as well as emission levels.
  - d. Identification of the adaptation parameters and methodology that must be applied, based on development or activity type, to ensure operational activities are suitable given likely climate conditions over the lifespan of the asset.

**Entered by Board Secretary**

- e. Specification of a list of technical reference documents for staff and contractors to use.
  - f. Enabling trials of activities or assets investigating reductions in environmental impacts, emissions, or climate risks based on an approved business case.
  - g. Enabling prompt response to new information by allowing the relevant Executive General Manager to approve updates to reference documents.
9. The Ministry for the Environment recommend using the RCP8.5 (worst case) trajectory for assets. However, a blanket requirement to respond as if to a worst-case climate scenario may lead to 'over-engineering' assets, with an associated increase in costs for AT, beyond what may be reasonably expected during the life of that particular asset.
10. The policy provides two additional methods for decision-making that enable criticality and the location of assets to be considered, potentially avoiding inappropriate design or construction of assets. These are use of a Dynamic Adaptation Planning Pathway (DAPP) approach or a sensitivity assessment.

**DAPP approach**

11. The DAPP approach develops a series of actions over time (pathways).
12. It is based on the idea of making decisions as conditions change, before severe damage occurs, and as existing policies and decisions prove no longer fit for purpose. This approach is recommended by Auckland Council.
13. By taking a DAPP approach, each asset or activity can be carefully and extensively assessed using robust information that may not be apparent in the Ministry for the Environment's national-level SSP recommendations. The DAPP approach may allow designing or building to a lower RCP trajectory and enable AT to better manage costs associated with climate adaptation.

**Shared Socio-economic Pathways (SSPs) and Representative Concentration Pathways (RCPs)**

14. SSPs are socio-economic assumptions driving greenhouse emissions (i.e., future global behaviour to reduce emissions or adapt to impacts).
15. RCPs are the greenhouse gas concentration (not emissions) trajectories used to produce climate-related projections of future conditions.
16. There are five SSP-RCP scenarios currently recommended by the Ministry for Environment (note: there are two 'SSP1' scenarios reflecting global temperature targets):
- a. SSP1 - 1.9 (1.5 degree global temperature increase)
  - b. SSP1 - 2.6 (under 2 degree global temperature increase)
  - c. SSP2 - 4.5 (2.5 degree global temperature increase)
  - d. SSP3 - 7.0 (3.5 degree global temperature increase)

Entered by Board Secretary

e. SSP5 - 8.5 (4.5 degree global temperature increase)

[Explanation: SSP [scenario number] - [RCP trajectory] e.g., SSP1 – 2.6 means SSP scenario 2 – matched with RCP trajectory 2.6]

17. The policy specifies the technical information to be used to ensure developments and activities demonstrate adaptation to the physical impacts of the changing climate, over the lifespan of the asset as follows:

Technical Information by Development or Activity Type		
Development or Activity Type	Risk Appetite	Must demonstrate adaptation to the physical impacts of the changing climate as forecast below, over the lifespan of the asset
Greenfields development/ major new infrastructure	Cautious	Avoid hazard risk using the SSP5 - 8.5H+ trajectory.
Redevelopment (intensification) and existing development and infrastructure	Cautious	SSP5 - 8.5M or DAPP. Adapt to hazards by conducting a risk assessment using SSP5 - 8.5M or using the DAPP approach. A SSP3 – 7.0M climate trajectory may be considered upon completion of a sensitivity assessment, based on criticality and location of assets.
Relocatable activities / developments / short-lived assets	Cautious	SSP3 – 7.0M or DAPP. Adapt to hazards by conducting a risk assessment using RCP 6M or using the DAPP approach. A SSP2 - 4.5M climate trajectory may be considered upon completion of a sensitivity assessment, based on criticality and location of assets.
Trials of activities or assets investigating reductions in environmental impacts, emissions, or climate risks.	N/A	Require an approved project plan or business case demonstrating a balance between a high likelihood of successful delivery and a high degree of reward and value for money.

Entered by Board Secretary

## Ngā tūraru matua / Key risks and mitigations

Key risk	Mitigation
The risk that AT will be unable to make decisions that are consistently in line with emissions reduction targets due to weak governance structures, systems, and settings (especially with regards to transparency and accountability).	The proposed policy will provide guidance to assist decision-making that is in line with the direction of the board.
The risk that AT won't be able to develop or deliver innovative solutions to complex problems because its internal culture that discourages risk-taking, cross-team and cross-sectoral collaboration, and accountability.	The proposed policy will provide guidance to staff that encourages innovation and risk-taking within appropriate boundaries.
The risk that AT will make the wrong decisions (policy, planning, or other) to meet Council's climate-related goals because of limited data, the wrong kind of data, or limited diversity of thought.	The proposed policy will provide guidance to staff and contractors to enable them to identify and use the appropriate datasets to use.
Uncertainty in climate projections could lead to under- or over-investment in adapting to climate change.	Use of a DAPP approach to monitor changes in climate action, projections, and impacts, and then review the risk appetite.

## Ngā ritenga-ā-pūtea me ngā rauemi / Financial and resource impacts

18. The development of the policy is in alignment with information on the financial and other impacts of climate change presented to committee in May 2022, as part of the discussion on AT's climate related risk appetite.
19. The impacts of climate change are expected to have significant financial impacts on AT's assets and services, particularly between now and 2050.
20. Some implications are able to be considered within the business-as-usual maintenance of the asset base, with instances where costs will reduce and other instances where costs are increased. The exact balance will be determined through adaptation planning.
21. Any new funding requirements identified through the adaptation planning process will need to be considered as part of the forthcoming Regional Land Transport Plan 2024-2034.

Entered by Board Secretary

## **Ngā whaiwhakaaro ō te taiao me te panonitanga o te āhuarangi / Environment and climate change considerations**

22. The focus of this report is on the physical impacts of climate change.

## **Ngā reo o mana whenua rātou ko ngā mema pooti, ko ngā roopu kei raro i te maru o te Kaunihera, ko ngā hāpori katoa / Voice of mana whenua, elected members, Council Controlled Organisations, customer, and community**

23. Mana whenua engagement began in November 2020 and will continue as adaptation plans are developed for top physical risks. The Māori Engagement team have indicated the appropriate time for engagement with Māori is in the adaptation planning that follows approval of this policy.

24. Local board engagement started in March 2021 and will continue as adaptation plans are developed.

25. There is ongoing interaction with the Council family on climate risk disclosure to develop consistent measures and reporting practices.

26. Public consultation and stakeholder engagement on AT's strategies and plans, and from Auckland Councils consultation on the Climate Plan, indicate a high level of support for addressing climate change.

## **Ngā whaiwhakaaro haumaruru me ngā whaiwhakaaro hauora / Health, safety and wellbeing considerations**

27. Based on current information, the impact of climate change on deaths and serious injury will be minimal.

28. A reduction in deaths and the social cost attributable to transport related air pollution is expected.

## **Ā muri ake nei / Next steps**

29. Once the proposed policy approved by the board, it will be published and proactively communicated to staff and contractors and embedded in business-as-usual staff practice.

30. Following approval by the board, climate related adaptation planning will commence. Design standards will also begin to be updated to reflect the policy.

Entered by Board Secretary

## Te whakapiringa / Attachment

Attachment number	Description
1	Climate Change Adaptation Policy

## Te pou whenua tuhinga / Document ownership

<b>Submitted by</b>	Sandra Murray Principal Sustainability Advisor	
<b>Recommended by:</b>	Ryan Marshall Manager Compliance	
<b>Endorsed by:</b>	Rodger Murphy Executive General Manager Risk & Assurance	
<b>Approved for submission</b>	Mark Lambert Interim Chief Executive	