Hon Nanaia Mahuta, Minister of Local Government

Proactive release of Cabinet material about improving resilience to flood risk and supporting the COVID-19 recovery, 1 July 2020

The following documents have been proactively released:

1 July 2020, DEV-20-MIN-0120: Improving Resilience to Flood Risk and Supporting the COVID-19 Recovery, Cabinet Office; and

1 July 2020, Cabinet Paper: Improving resilience to flood risk and supporting the COVID-19 recovery, Office of the Minister of Local Government.

Some parts of this information would not be appropriate to release and, if requested, would be withheld under the Official Information Act 1982 (the Act). Where this is the case, the relevant sections of the Act that would apply have been identified. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

Key to Redaction Codes:

- 9(2)(f)(iv) – maintain the constitutional conventions for the time being which protect the confidentiality of advice tendered by Ministers of the Crown and officials

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Improving Resilience to Flood Risk and Supporting the COVID-19 Recovery

Portfolio Local Government

On 1 July 2020, the Cabinet Economic Development Committee (DEV):

Background

1 noted that on 11 November 2019, Cabinet invited Community Resilience Ministers to report back to DEV on a proposed framework to guide the role of central government in strengthening community resilience and its implications for the different priority areas in the cross-government community resilience work programme, with an initial focus on flood risk [CAB-19-MIN-0588];

2 noted that the paper under DEV-20-SUB-0120 should be read alongside the accompanying paper on National Climate Change Risk Assessment: Public Release and Initial Government Response under DEV-20-SUB-0121 and, through the case of flood risk management, provides a tangible example of the drivers for climate change adaptation;

3 noted that natural hazards and the effects of climate change pose significant risks to intergenerational wellbeing, which will become harder and more costly to address over time;

4 noted that floods are New Zealand’s most common natural hazard, and their frequency and intensity are predicted to increase through the effects of climate change;

A framework for central government intervention

5 agreed that the proposed framework, attached as Appendix A to the paper under DEV-20-SUB-0120 (the proposed framework), be used to guide central government intervention in strengthening community resilience, through a more active, stewardship role of the overall system, which is underpinned by the following principles:

5.1 invest in effective risk reduction;

5.2 make risk management decisions at the level closest to the affected community;

5.3 provide effective outcomes for Māori;

5.4 intervene where there is national interest or benefit;

5.5 require beneficiaries of risk mitigation to pay;

5.6 ensure fairness and equity for communities, including across generations;
Flood risk management

6 noted that the current funding arrangements for flood protection infrastructure were established over 30 years ago, and are no longer considered sustainable or consistent with delivering outcomes in line with the proposed framework and the principles referred to above;

7 noted that officials do not support the proposed details of the co-investment case for flood protection infrastructure presented by Local Government New Zealand and the River Managers’ Regional Sector Special Interest Group, as it does not align with the proposed framework;

8 noted that, subject to further work, central government’s funding approach to building resilience would consider the benefit principle, fairness, and intergenerational wellbeing, and emphasise the need to:

8.1 invest in risk reduction to minimise long-run costs;

8.2 prioritise vulnerable communities (where both significant fiscal pressures and natural hazards risks converge) to ensure their safety and wellbeing;

9 agreed that officials will work closely with local government to ensure that flood protection schemes:

9.1 are culturally sensitive;

9.2 utilise, where possible, natural infrastructure (the use of vegetation, ecosystems, permeable surfaces and water storage);

9.3 adopt water-sensitive urban design in urban areas (using surfaces and vegetation to absorb or hold water);

10 noted that local government has sought funding for shovel-ready projects related to flood protection infrastructure via the Provincial Growth Fund or the Crown Infrastructure Partnership funding process;

11 noted that the shovel-ready projects related to flood protection infrastructure have been assessed, and that officials will work with local government to develop a revised funding model for flood protection, based on the proposed framework and set of principles, which would be implemented over the longer term;

Regulatory powers

12 noted that the regulatory system for flood risk management needs to focus more on risk reduction and climate change adaptation;

13 noted that there is a need to provide greater regulatory powers for councils to better manage natural hazard risk and the effects of climate change;

14 directed officials to undertake further work on:

14.1 options to provide greater national direction on flood risk management for councils;

14.2 a framework for retreating/relocating from high risk areas (managed retreat);
Data and information

15 noted that an inconsistent approach to the collection and use of data and information, along with significant data gaps, have led to poor flood risk management outcomes;

16 directed officials to:

16.1 undertake further work to explore the development of a national flood risk model, which would include establishing baseline data sets for flood risk management in the short-term;

16.2 undertake further work in partnership with local government, to design a new template for Land Information Memoranda;

16.3 report back to DEV in December 2020;

Engagement with local government and Māori communities

17 noted that officials will continue to undertake a partnership approach with local government to progress the community resilience work programme, including on the development of a new funding model for flood risk management;

18 noted that a critical next step in the community resilience work programme is targeted engagement with Māori communities located in high risk flood areas, to ensure that mātauranga taiao and tikanga Māori shape the future direction of community resilience to flood risk;

Further report

19 invited the Minister of Local Government, in association with Community Resilience Ministers, to report back to DEV in December 2020, on:

19.1 how the proposed framework might apply to other natural hazards;

19.2 a framework for retreating/relocating from high risk areas (managed retreat).
In Confidence – Budget sensitive

Office of the Minister of Local Government

Chair, Cabinet Economic Development Committee

Improving resilience to flood risk and supporting the COVID-19 recovery

Purpose

1. This paper seeks agreement to a framework to guide the role of central government in strengthening community resilience, with an initial focus on flood risk. It also proposes a suite of actions to improve resilience to flood risk.

2. This paper accompanies the Minister for Climate Change’s paper, National Climate Change Risk Assessment – public release and government’s initial response, and through the case of flood risk management, provides a tangible example of the drivers for climate change adaptation.

Relation to government priorities

3. This paper relates to the COVID-19 recovery through the opportunities presented by the shovel ready projects local government is seeking funding for to improve flood protection infrastructure. It also relates to the following government priorities:
   3.1 support thriving, sustainable regions;
   3.2 transition to a clean, green carbon neutral New Zealand; and
   3.3 support healthier, safer and more connected communities.

Executive summary

4. Floods are our most common natural hazard and their frequency and intensity are predicted to increase through the effects of climate change. Flood risk management is a complex system that requires all actors to work in partnership to achieve optimal outcomes. Between November 2019 and March 2020, experts worked with officials to identify our flood management system’s key issues. These include a need to:
   4.1 adjust the system-level roles and responsibilities for managing flood risk;
   4.2 reset the current funding arrangements for flood protection infrastructure; and
   4.3 give the regulatory system for flood risk management more focus on risk reduction and climate change adaptation.

5. I seek agreement to a proposed framework to guide central government intervention in strengthening community resilience (see Appendix A). This framework introduces a more active, stewardship role for central government, and the following principles:
   5.1 invest in effective risk reduction;
   5.2 make risk management decisions at the level closest to the affected community;
   5.3 provide effective outcomes for Māori;
5.4 intervene where there is national interest or benefit;
5.5 require beneficiaries of risk mitigation to pay;
5.6 ensure fairness and equity for communities, including across generations; and

6. Our investment decisions as part of the COVID-19 recovery give us a 'once-in-a-lifetime' opportunity to substantially increase our efforts towards building resilience to natural hazards and the impacts of climate change.

7. Local government has sought funding for shovel ready projects related to flood protection infrastructure via the Provincial Growth Fund or the Crown Infrastructure Partnership funding process. These projects have the potential to help build resilience in the shorter-term by protecting towns, communities and businesses, and contribute to accelerating New Zealand’s economic recovery.

8. Officials have advised that there is a need to reset the funding arrangements for flood protection infrastructure. I propose that officials work in partnership with local government to agree a revised funding model for flood protection, based on the proposed framework and principles, to be implemented over the longer-term.

9. As an interim step while officials progress longer-term initiatives, the flood protection shovel ready projects are an opportunity to make significant gains in flood risk management. Government has recently announced an allocation of $210 million from the COVID-19 Response and Recovery Fund will go towards climate resilience and flood protection projects.

10. Officials will prioritise projects after their assessment against resilience criteria based on the proposed framework and principles. This will also ensure that we are not locking in further exposure or vulnerability to natural hazards and/or climate change impacts through infrastructure initiatives as part of the COVID-19 recovery.

Background

11. On 11 November 2019, Cabinet invited Community Resilience Ministers to report back to the Cabinet Economic Development Committee (DEV) on a proposed framework to guide the role of central government in strengthening community resilience and its implications for the different priority areas in the work programme, with an initial focus on flood risk [CAB-19-MIN-0588].

12. Cabinet also invited Community Resilience Ministers to:
   12.1 review the actions the government is already taking or planning (both underway or proposed) to support New Zealand to adapt to the risks likely to be identified in the National Climate Change Risk Assessment; and
   12.2 report back in May 2020 on options for the government's initial response to the risks likely to be identified in the National Climate Change Risk Assessment to address any immediate gaps [CAB-19-MIN-0588].

13. The latter two matters are detailed in the Minister for Climate Change’s paper on the National Climate Change Risk Assessment, which accompanies this paper.

14. Both papers present a case for more proactive central government involvement to support the system for managing natural hazards and/or climate change adaptation. This would involve improving data provision and strengthening the legislative framework through Resource Management Act 1991 (RMA) and other legislation.
15. In addition, there may be situations where the risks are great enough that central government takes an active hand through funding or decision-making processes.

16. Natural hazards and the effects of climate change pose significant risks to intergenerational wellbeing, which will become harder and more costly to address over time. Both papers therefore deal with long-term timeframes and challenges, and seek agreement to a direction of travel to respond to those challenges.

17. This paper highlights, in the case of floods, a natural hazard that intersects powerfully with the effects of climate change, and in doing so, provides a tangible example of the drivers for climate change adaptation. It also focuses on options that have the potential to strengthen resilience significantly in the short-term, particularly through the shovel ready projects related to flood protection infrastructure.

**Floods are hitting our communities often and hard**

18. Central and local government officials have progressed a joint work programme to build community resilience to natural hazards and the effects of climate change. Since November 2019, the focus has been on improving resilience to flood risk, which local government identified as a critical first action.

19. Floods are our most common natural hazard and their frequency and intensity are predicted to increase through the effects of climate change. They can have a devastating social and economic impact on local communities, which at present are likely more vulnerable to such impacts due to the current social and economic impacts of COVID-19. Flood impacts include disrupted access to roads, railway, power, the internet and other key services (such as wastewater and water supply infrastructure) upon which our lives and livelihoods depend.

20. Extreme rainfall events are overwhelming urban water networks due to the concentration of hard surfaces, aging drainage infrastructure, and sea level rise. In rural areas flooding of rivers, lakes and ponds causes significant social and economic impacts for rural communities, animal welfare, and rural land uses and infrastructure.

21. Flooding is estimated to cost New Zealand over $160 million (inflation-adjusted) per year. Insurance alone has paid out an average of $58 million annually (inflation-adjusted) over the last four decades, and over $220 million in both 2017 and 2018.

22. On average, there is a major flood every eight months. The Rangitata flood in Canterbury in December 2019 provides a striking example of a nationally significant flood event. It closed State Highway 1 and the upper Inland Route 72 bridges for three days. The main railway embankment crossing the river washed out, closing the main trunk line for three weeks. Power pylons toppled over, Timaru District Council roads washed out, and milk could not be collected. There was damage to private farm infrastructure and residential property. A simultaneous flood event on the West Coast meant that the South Island was cut in half.
Understanding the state of the flood management system and how we can improve resilience over the short- and long-term

23. Between November 2019 and March 2020, experts worked with officials to identify our flood management system’s key issues, and practical options for addressing them. The approach to this work took a system-level view, with a focus on: roles and responsibilities; funding and financing; regulatory systems; and data and information.

24. These areas impinge on each other in important ways. For example, a more closely aligned legislative and regulatory system would clarify the roles and responsibilities of all actors, whose decisions would be supported by better data and information.

**The increased and changing nature of flood risks, driven particularly by climate change, require a review of the system-level roles and responsibilities for managing flood risk**

25. Flood risk management is a complex system that requires all actors to work together to achieve optimal outcomes. Communities, private asset owners, and central and local government all have a part to play in building resilience to flood risks.

26. Because of the wide range of actors and statutes that operate in the regulatory system for flood risk management, roles and responsibilities are not always clear. In dealing with difficult climate change related issues, there are gaps in legislation due to unanticipated risks. The lack of clarity will be amplified by climate change adaptation factors and any shift in the flood risk management system towards risk reduction.

27. The system’s high reliance on local risk management is not well placed to meet current and future challenges, particularly those driven by climate change. These challenges underscore the need for our approach to flood risk management to evolve. There is an opportunity for central government to increase its stewardship of the overall system. This implies a more active role in supporting communities and local government to manage the risks. This is particularly the case where some functions are best performed or coordinated at a national level or where it is beyond the capability of local government and communities to manage effectively at local or regional levels.

**A framework for central government’s role in strengthening community resilience**

28. I seek agreement to a framework and set of principles to guide central government intervention in strengthening community resilience (see Appendix A), which assumes a more active stewardship role of the overall system. The framework would enable a dynamic system and an approach in which the various roles and responsibilities are based on principles and on partnerships that will evolve efficiently over time.

29. The proposed framework sets out the drivers for change; transformative initiatives; strategic shifts; principles; what we want to achieve; and how we will work.

30. The proposed principles that underpin the framework are:

30.1 invest in effective risk reduction;

30.2 make risk management decisions at the level closest to the affected community;

30.3 provide effective outcomes for Māori;

30.4 intervene where there is national interest or benefit;
30.5 require beneficiaries of risk mitigation to pay;
30.6 ensure fairness and equity for communities, including across generations; and

31. Appendix B provides information about the intent of these principles and how they would be applied to improve community resilience to flood risk.

32. In some cases, certain principles may be prioritised over others. For example, central government may provide flood risk assistance for communities where there is a national interest or benefit, or where communities in high flood risk areas have limited ability to pay.

33. The framework provides a starting point for wider conversations and will be further developed for specific contexts (e.g. other natural hazards) and different timeframes (e.g. longer-term climate change adaptation). Discussions will be needed with local government around the proposed stewardship role for central government and revised funding arrangements for flood protection infrastructure (discussed below).

**We need a new national funding model for flood protection**

34. Local government has been responsible for funding flood protection infrastructure since the 1980s. Prior to this a significant contribution came from central government through programmes aimed at enabling land development and settlement. There are over 350 schemes across the country, currently estimated to have a total value of $2.3 billion, with economic benefits worth $11 billion per annum.

35. Community wellbeing depends on the lifelines protected by flood protection schemes, which include road, railway, power and communications, as well as essential services such as water supply, wastewater, schools and hospitals. Despite the benefits accrued for State-owned assets and the national interest, central government does not directly contribute funding to flood protection infrastructure. These arrangements have not been reviewed for over 30 years.

36. Local government’s stated priority for the community resilience work programme is funding arrangements for flood protection. Changes in this area would have the most impact on building resilience to flood risk in the short-term. Making changes now would also help to initiate a step change in the design of flood protection schemes, ensuring they are culturally sensitive, utilise natural infrastructure (the use of vegetation, ecosystems, permeable surfaces and water storage), and adopt water-sensitive urban design in urban areas (using surfaces and vegetation to absorb or hold water).

37. In late 2019, Local Government New Zealand and the River Managers’ Regional Sector Special Interest Group sought central government’s consideration of a co-investment case for flood protection, whereby central government invests up to:

37.1 75 per cent towards the cost of new works;
37.2 50 per cent towards the cost of upgrades to existing schemes; and
37.3 33 per cent towards the maintenance of existing schemes.

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1 Prior to the early 1980s, central government contributed funding towards river management and flood protection schemes at rates of 50 to 75 per cent of the total costs. Central government also typically contributed 33 per cent of the total costs of maintaining these schemes.
38. The co-investment case seeks a central government contribution over the next three years, with $50 million in the first year, $100 million in the second year, and $150 million in the third year.

39. Officials acknowledge that the current funding arrangements for flood protection infrastructure are no longer sustainable. The reasons for this include the need to:
   39.1 adapt flood protection schemes, most of which are old, to mitigate the impacts of climate change;
   39.2 consider the fiscal barriers councils are facing, as highlighted by the Productivity Commission in 2019, which have been exacerbated by COVID-19; and
   39.3 protect national assets and infrastructure (in keeping with a beneficiary pays system), and lifeline services, upon which lives and livelihoods depend.

40. Officials do not, however, support the proposed details of the co-investment case. While there does appear to be a case for co-investment as part of a new framework for flood risk management in New Zealand, the local government proposal does not align well with the framework and principles proposed in this paper. In particular, the funding formula proposed does not allow for prioritisation across initiatives from a national perspective including the ability to fund projects of greatest public benefit.

A revised funding model for flood protection should align with the proposed framework

41. I propose that officials work in partnership with local government to agree a revised funding model for flood protection, based on the proposed framework and principles, which would be implemented over the longer-term.

42. This work would consider:
   42.1 the extent to which Crown assets benefit from flood protection infrastructure, in keeping with a beneficiary/exacerbator pays system; and
   42.2 how the costs for managing flood risk are currently distributed across councils, communities and generations, and how this might be more fairly and equitably managed in future.

43. There is international evidence that investing in risk reduction reduces costs in the long run; overseas studies indicate an average benefit-cost ratio of at least five dollars saved for every dollar spent in flood mitigation. There is also a need to identify where the fiscal pressure points are across the country, i.e. which councils and communities face challenges from high flood risk and meeting the costs of mitigating those risks.

44. Subject to further work, I see merit in resetting central government’s funding approach to building resilience, so that it considers the benefit principle, fairness and intergenerational wellbeing, and emphasises the need to:
   44.1 invest in risk reduction to minimise long-run costs; and
   44.2 prioritise vulnerable communities (where both significant fiscal pressures and natural hazards risks converge) to ensure their safety and wellbeing.

The COVID-19 recovery presents a unique opportunity to strengthen community resilience

45. Our investment decisions as part of the COVID-19 recovery give us a ‘once-in-a-lifetime’ opportunity to substantially increase our efforts towards building resilience to natural hazards and the impacts of climate change.
46. Shovel ready projects provide a direct means to assist local government with addressing flood risks to many different communities throughout the nation.

47. Investment decisions need to consider the significant financial hit that councils have been dealt by COVID-19. As councils have a large responsibility for managing natural hazards and addressing the adaptation challenges of climate change, the extra fiscal challenges they now face create additional risks to intergenerational wellbeing. As noted above, natural hazards and the effects of climate will become harder and more costly to address over time.

48. Local government has sought funding for shovel ready projects related to flood protection infrastructure via the Provincial Growth Fund or the Crown Infrastructure Partnership funding process. These projects involve river management (fluvial) and urban stormwater management (pluvial) shovel ready projects, and include a package of 65 projects put forward by regional council river managers. These projects have the potential to help build resilience in the shorter-term by protecting towns, communities and businesses, and contribute to accelerating New Zealand’s economic recovery including through the creation of new employment opportunities.

49. The funding available for shovel ready infrastructure initiatives as part of the COVID-19 recovery is heavily oversubscribed. However, investing now and front loading the central government contribution to flood protection schemes has the potential to minimise long-run costs, which would accrue through flood recovery and response, and overdue maintenance of flood protection assets.

50. Government has recently announced an allocation of $210 million from the COVID-19 Response and Recovery Fund will go towards climate resilience and flood protection projects. Officials will prioritise projects against resilience criteria based on the proposed framework and principles (Appendices A and B). Officials have commenced work on assessment criteria, including avoiding significant environmental harm. This approach will ensure that we are not locking in further exposure or vulnerability to natural hazards and/or climate change impacts.

51. In this way we can realise some of the immediate benefits of nationally significant flood risk management projects while work is commissioned with local government on developing a long-term, sustainable funding model for flood management. Issues such as the form or level of any future Crown contribution will need to be addressed as part of this work. It will also provide impetus for the adoption of more consistent practices across local government such as the use of nationally consistent data and information.

52. Officials could report back on a proposed new funding model and how these shovel ready projects could be prioritised and funded.

Flood risk management needs more focus on risk reduction and climate change adaptation

53. Much of our built environment is exposed to natural hazard risks. Without strong regulatory settings we would create future risk by building in locations without consideration of land conditions and hazards that affect sites. It is important that we have a resilience framework (as described in Appendices A and B) that provides appropriate due diligence principles for development projects.

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2 Officials have not carried out due diligence on the projects, so there may be a few cases where risks might increase or allow for moral hazard.
54. For government and communities to effectively reduce flood risks and recover faster after a flood event, the regulatory system needs to support proactive and flexible flood risk management. The flood risk management system needs to be future-proofed to provide better protection against the impacts of climate change, which is raising the level of flood risk in certain parts of the country.

55. A successful regulatory system for flood risk management would seek to:
   55.1 facilitate adaptive responses by communities to increasing levels of flood risk and climate change, which give consideration to natural infrastructure;
   55.2 ensure new development and existing development is risk-informed and specifically considers flood risk; and
   55.3 create stronger incentives to reduce risk from floods.

56. However, the establishment of such a regulatory system requires work to address key problems with the status quo. These problems relate to the need to:
   56.1 align the relevant regulation and legislation (e.g. between the RMA and the Building Act 2004), to enable an integrated and holistic approach to managing flood risk (e.g. integrate urban and rural flood risk with a catchment management approach);
   56.2 shift the system to focus more on risk reduction and climate change adaptation, while maintaining effective risk transfer, emergency response and recovery arrangements; and
   56.3 provide greater regulatory powers for councils to better manage natural hazard risk and the effects of climate change.

57. Addressing these problems are long-term challenges, and relevant to the current review of the Resource Management system, which the Ministry for the Environment is leading. This review is an opportunity to highlight and investigate how the system could provide greater regulatory powers to better manage flood risk and climate change.

58. There are other opportunities that would strengthen regulatory settings for flood risk management. I seek approval for officials to do further work on:
   58.1 options to provide greater national direction on flood risk management for councils; and
   58.2 a framework for retreating/relocating from high risk areas (managed retreat).

Greater national direction on flood risk management for councils

59. Councils are seeking national direction from central government on flood risk management. Local government has noted that national direction would be an effective means of encouraging councils to be more active in addressing risk.

60. Greater certainty for local planning decisions and greater ability for councils to intervene to reduce societal risks from flooding, for example, would support positive outcomes. Such guidance would also help identify areas highly-prone to flooding and where development should be avoided.

Developing a framework for managed retreat
61. The RMA does not provide a clear mechanism, or associated national guidance, on how to retreat or relocate from locations that are at highest risk of flooding. Further, it is potentially too slow and inflexible to accommodate flood risk events that may trigger the need for more restrictive measures to be in place. If managed retreat becomes an increasingly used option for managing flood risk, then an agreed framework between government and communities will be required, to provide a consistent approach and avoid ad-hoc responses. This is an area that underscores the need to consider a cost-benefit analysis over the longer-term when mitigating natural hazard risk. Relying on technical solutions in the first instance may prove to be more costly in the long run, for example, if communities still need to retreat or relocate at a later point.

An inconsistent approach to the collection and use of data and information, along with significant data gaps, have led to poor flood risk management outcomes

62. Our ability to effectively assess and reduce flood risk requires accessible, robust and up-to-date data and information, which are used in a nationally-consistent way. However, there is a lack of common practice between councils in the way flood risk data and information are currently collected, applied, and communicated to communities. Additionally, the current data and information base that supports decisions on flood risk in New Zealand is not fit for purpose, for several reasons:

62.1 it is based on historical flood records rather than on future climate-change informed projections;
62.2 there are significant gaps in data sets related to stop banks, asset maintenance, exposed population and surface flooding risks; and
62.3 there is a lack of information on risk receptors, and the absence of nationally consistent flood hazard maps.

63. To address these problems, there is a need for central government and local government agencies to interact more effectively and efficiently to:

63.1 improve the quality of flood risk data and information;
63.2 provide national data standards for flood risk information; and
63.3 ensure it is applied consistently across the country.

A national flood risk model will improve decision-making and contribute to the proposed stewardship role for central government

64. More sophisticated data will be required in response to climate change, which may include the use of new technologies. To ensure we can improve flood risk decision-making through enhanced and consistent data and information, I seek approval for officials to undertake further work to explore the development of a national flood risk model, which would include establishing baseline data sets for flood risk management.

65. A national flood risk model is a potential key area in which central government could play a stewardship role. This would allow for in-depth and specific guidance to be communicated to local government in managing flood risk to their communities.
66. A national flood risk model for New Zealand would enable common standards for data capture, management and exchange of consistent and fit for purpose data. It would also allow a better understanding of national risk exposure and help inform insurance markets. Flood hazard mapping and data sets of national significance could be identified for assessing the exposure and consequences of elements at risk to flood hazards at a national scale. A consistent approach would address issues with an inequitable system for data so small councils can assess the same data as large councils. A national approach would also enable sharing of information, scenarios and examples of good practice in response to flood risk.

67. A staged approach will be required to achieve a nationally-consistent flood risk model in the long-term. Initial work would focus on the development of baseline datasets and consistent data standards, along with arrangements for their ongoing management. Officials need to do further work on who would fund and administer the data, and explore options for achieving national consistency of data.

Enhancing the role of Land Information Memorandums (LIMs)

68. I also seek approval for officials to undertake further work in the short-term to enhance the role of LIMs as a risk disclosure mechanism. The current LIM regime is not fit for the purpose of communicating risks from natural hazards for property buyers and current owners. The content and format of LIM reports varies considerably across the country. LIM reports do not need to include natural hazards information that is already included in district plans and regularly do not. A nationally consistent LIM system, with clear guidance for councils, would result in better communication of flood risk being available to those purchasing a property. Officials will work with local government to design a new template for LIMs and report back in December 2020.

Empowering and protecting communities, and engagement with iwi

69. The natural hazards management system is fundamentally about supporting communities. There are opportunities for government and communities to forge a closer partnership approach to managing flood risk. Building trust, ensuring community concerns are heard, and working through flood management options with local communities are essential to an effective flood risk management system. This partnership approach should empower iwi and communities to contribute local knowledge on flood risk, particularly through mātauranga taiao, and participate in flood risk management decisions.

70. Importantly, this work should prioritise the involvement of Māori communities, and seek to develop a sustainable, long-term partnership approach to improving community resilience.

71. This work programme acknowledges the special status of iwi as tangata whenua and Treaty partners, and the intention to undertake a collaborative approach to ensure Māori values and interests are protected and enhanced. A critical next step in the community resilience work programme is targeted engagement with Māori communities located in high risk flood areas.
72. This will involve a series of hui with Te Rūnanga o Whaingaroa, Whanganui Iwi, Ngāti Awa and Ngāi Tahu. The intention of this initial approach is to build relationships, and to understand the iwi lived experience of flooding and the issues of flood risk management within their rohe. Positive early engagement had occurred just prior to the implementation of COVID-19 restrictions, which have since delayed the potential for further hui. Officials intend to recommence their engagement with iwi once it is safe and appropriate to do so.

Next steps

73. Subject to Cabinet decisions, I propose a report back to DEV in December 2020, on:

73.1 how the proposed framework to guide central government’s role in strengthening resilience to flood risk might apply to other natural hazards;
73.2 a framework for managed retreat; and
73.3 work to design a new template for LIMs.

74. Officials will continue to undertake a partnership approach with local government to progress the community resilience work programme, including in the areas listed above, as well as the development of a new funding model for flood risk management.

Financial implications

75. There are no financial implications associated with agreement to the guiding framework and principles for central government intervention in strengthening community resilience (Appendix A).

76. Financial implications associated with the local government shovel ready projects related to flood protection infrastructure are being independently addressed through the specific assessment, approval and appropriation processes established to support decision-making and funding for such projects.

77. 9(2)(f)(iv)

Legislative implications

78. The proposals in this paper seek agreement for officials to undertake further work on strengthening regulatory provisions. They do not have any direct legislative implications at this point.

Population Implications

79. As highlighted in the National Climate Change Risk Assessment, “social vulnerabilities and their relationship with climate change impacts need to be further explored, along with impacts to Māori social, cultural, spiritual and economic wellbeing.” The impacts of climate change are likely to disproportionally affect a range of population groups.
80. The table below describes the characteristics of sensitivity to extreme events associated with climate change, and natural hazards generally.

<table>
<thead>
<tr>
<th>Population group</th>
<th>How this group may be affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Māori</td>
<td>Socioeconomic disparities between Māori and non-Māori communities produce conditions that increase sensitivity to climate change impacts and risks for Māori society. Māori communities are more sensitive to climate impacts on ecological systems due to dependence on primary industries for livelihoods, and the impacts of climate change on cultural and spiritual wellbeing, as well as on coastal mahinga kai and proximity of housing and infrastructure to processes such as erosion and inundation.</td>
</tr>
<tr>
<td>Women</td>
<td>Following disasters, women and children are often vulnerable. Evidence indicates that lower-income women experience and navigate ongoing job and house displacement, increased domestic violence and reduced access to education and childcare for children after extreme events. Unequal participation in labour markets and decision-making processes compound inequalities.</td>
</tr>
<tr>
<td>Ethnic communities</td>
<td>Where members of ethnic communities are immigrants from non-English-speaking countries, language barriers can greatly increase vulnerability during a disaster such as a natural hazard.</td>
</tr>
<tr>
<td>Children and the elderly</td>
<td>Disruptions created by a disaster can have significant psychological and physical impacts on children. The elderly are likely to suffer health problems and experience a slower recovery, and tend to be more reluctant to evacuate their homes in a disaster.</td>
</tr>
<tr>
<td>Disabled people</td>
<td>People living with mental or physical disabilities are less able to respond effectively to disasters and require additional assistance in preparing for and recovering from disasters.</td>
</tr>
</tbody>
</table>

**Human rights**

81. The proposals in this paper do not affect human rights.

**Consultation**

82. The following agencies were consulted on this paper: Ministry for the Environment; the Treasury; Land Information New Zealand; National Emergency Management Agency; the Department of the Prime Minister and Cabinet; the Earthquake Commission; Ministry of Business, Innovation and Employment; Ministry of Housing and Urban Development; Ministry for Primary Industries; New Zealand Transport Agency; and Department of Conservation. Te Puni Kōkiri was informed.

**Communications**

83. There is no planned publicity associated with this paper.

**Proactive release**

84. This paper will be published pursuant to Cabinet Office circular CO (18) 4.
Recommendations

The Minister of Local Government recommends that the Cabinet Economic Development Committee:

Background

1. note that, in November 2019, Cabinet invited Community Resilience Ministers to report back to the Cabinet Economic Development Committee on a proposed framework to guide the role of central government in strengthening community resilience and its implications for the different priority areas in the work programme, with an initial focus on flood risk [CAB-19-MIN-0588];
2. note this paper accompanies the Minister for Climate Change’s paper on the National Climate Change Risk Assessment and, through the case of flood risk management, provides a tangible example of the drivers for climate change adaptation;
3. note that natural hazards and the effects of climate change pose significant risks to intergenerational wellbeing, which will become harder and more costly to address over time;
4. note that floods are our most common natural hazard and their frequency and intensity are predicted to increase through the effects of climate change;

A framework for central government intervention

5. agree that the proposed framework guides central government intervention in strengthening community resilience, through a more active, stewardship role of the overall system, which is underpinned by the following principles:
   5.1 invest in effective risk reduction;
   5.2 make risk management decisions at the level closest to the affected community;
   5.3 provide effective outcomes for Māori;
   5.4 intervene where there is national interest or benefit;
   5.5 require beneficiaries of risk mitigation to pay;
   5.6 ensure fairness and equity for communities, including across generations; and

Flood risk management

6. note that the current funding arrangements for flood protection infrastructure were established over 30 years ago and are no longer considered sustainable or consistent with delivering outcomes in line with the proposed framework (Appendix A) and principles above;
7. note that officials do not support the proposed details of the co-investment case for flood protection infrastructure presented by Local Government New Zealand and the River Managers’ Regional Sector Special Interest Group, as it does not align with the proposed framework (Appendix A);
8. note that, subject to further work, central government’s funding approach to building resilience would consider the benefit principle, fairness and intergenerational wellbeing, and emphasise the need to:
   8.1 invest in risk reduction to minimise long-run costs; and
   8.2 prioritise vulnerable communities (where both significant fiscal pressures and natural hazards risks converge) to ensure their safety and wellbeing;
9. agree that officials will work closely with local government to ensure that flood protection schemes:
   9.1 are culturally sensitive;
   9.2 utilise, where possible, natural infrastructure (the use of vegetation, ecosystems, permeable surfaces and water storage);
   9.3 adopt water-sensitive urban design in urban areas (using surfaces and vegetation to absorb or hold water);
10. note that local government has sought funding for shovel ready projects related to flood protection infrastructure via the Provincial Growth Fund or the Crown Infrastructure Partnership funding process;
11. noted that the shovel-ready projects related to flood protection infrastructure have been assessed, and that officials work with local government to develop a revised funding model for flood protection, based on the proposed framework and set of principles, which would be implemented over the longer-term;

Regulatory powers
12. note that the regulatory system for flood risk management needs to focus more on risk reduction and climate change adaptation;
13. note that there is a need to provide greater regulatory powers for councils to better manage natural hazard risk and the effects of climate change;
14. direct officials to undertake further work on:
   14.1 options to provide greater national direction on flood risk management for councils;
   14.2 a framework for retreating/relocating from high risk areas (managed retreat);

Data and information
15. note that an inconsistent approach to the collection and use of data and information, along with significant data gaps, have led to poor flood risk management outcomes;
16. direct officials to:
   16.1 undertake further work to explore the development of a national flood risk model, which would include establishing baseline data sets for flood risk management in the short-term;
   16.2 undertake further work in partnership with local government to design a new template for Land Information Memoranda;
   16.3 report back in December 2020;

Engagement with local government and Māori communities
17. note that officials will continue to undertake a partnership approach with local government to progress the community resilience work programme, including on the development of a new funding model for flood risk management;
18. note that a critical next step in the community resilience work programme is targeted engagement with Māori communities located in high risk flood areas, to ensure that mātauranga taiao and tikanga Māori shape the future direction of community resilience to flood risk;

Further report
19. invite the Minister of Local Government, in association with Community Resilience Ministers, to report back in December 2020, on

19.1 how the proposed framework (see recommendation 5) might apply to other natural hazards;

19.2 a framework for retreating/relocating from high risk areas (managed retreat).

Authorised for lodgement

Hon Nanaia Mahuta

Minister of Local Government
Appendix A: Framework to guide central government’s role in strengthening community resilience to flood risk
GUIDING FRAMEWORK FOR CENTRAL GOVERNMENT’S ROLE IN IMPROVING COMMUNITY RESILIENCE TO FLOOD RISK

Central government sets the national policy framework for flood risk management and manages the system in partnership with local government, Māori and communities

1. Drivers for Change

- Flooding is New Zealand’s most common natural hazard and it is estimated to cost New Zealand $160 million per year
- Over 30% of New Zealand’s cities and towns are located on flood plains
- Our urban areas are built with hard surfaces that do not absorb water well and exacerbate flooding
- Climate change will increase the intensity and frequency of flood events and create stresses on our current response and recovery framework, with significant economic impacts
- Improving resilience to flood risk requires greater investment in risk mitigation and risk reduction while maintaining recovery, response and risk transfer arrangements
- International evidence shows risk reduction pays with an average benefit-cost ratio of at least five dollars saved for every dollar spent in flood mitigation
- Councils are seeking greater national direction from government on flood risk management
- The current funding model where local government is the primary funder of flood risk management, and central government does not contribute funding despite national benefits accrued, is no longer sustainable
- Some shovel-ready flood risk projects put forward as part of COVID-19 recovery stimulus provide an opportunity to improve community resilience

2. What we want to achieve

- Ensure new development does not occur in areas highly exposed to flood risk
- Create stronger incentives to reduce risk from flooding
- Enable the natural hazard risk management system to respond to new and emerging hazards
- Clarify roles and responsibilities for the different actors
- Facilitate adaptive responses by communities to increasing levels of risk from flooding and climate change
- Ensure that costs and risks are equitably borne, and moral hazard avoided

3. Our principles

1. Invest in effective risk reduction
2. Make risk management decisions at the level closest to the affected community
3. Provide effective outcomes for Māori
4. Intervene where there is national interest or benefit
5. Require beneficiaries of risk mitigation to pay
6. Ensure fairness and equity for communities, including across generations

4. How we will work

- Adopt a shared approach to risk management where everyone understands and plays their part
- Take proportional action so flood hazard is managed appropriate to the level of risk
- Make evidence-based decisions based on the best available science, data, knowledge and Mātauranga Māori
- Provide open and transparent processes sharing flood risk data and making information about flood risk publicly accessible
- Take an integrated approach to provide for long-term change and connections across urban and rural flood risk systems and communities
- Maximise co-benefits in funding decisions for flood risk management

5. Transformative initiatives to improve resilience

<table>
<thead>
<tr>
<th>Short-term initiatives</th>
<th>Longer-term initiatives</th>
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<tbody>
<tr>
<td>Improve access to data and information to improve flood risk decision-making</td>
<td>A National Flood Risk Model</td>
</tr>
<tr>
<td>Invest in baseline data sets for flood risk management</td>
<td>Develop a framework and resource for sub-national climate risk assessments</td>
</tr>
<tr>
<td>Adopt consistent data standards for flood risk data</td>
<td></td>
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<tr>
<td>Improve the UIM system</td>
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<tr>
<td>Build closer relationships with the science sector to improve the transfer of flood risk science into policy processes</td>
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</tbody>
</table>

6. Strategic Shifts

New Zealand communities are resilient to flood events in a way that contributes to the wellbeing and prosperity of all New Zealanders

1. Central and local government and asset owners have the right information to enable effective decision-making
2. Communities understand the risks they face and are engaged in flood risk decision-making
3. Regulatory settings are strengthened so councils are empowered to limit development in highest risk locations
4. A more integrated approach to flood risk is adopted across regulatory systems and in the management of catchments
5. Water-sensitive urban design forms part of flood risk management for our urban areas
6. Development is risk-informed and communities can recover more quickly from flood events
7. Iwi and vulnerable communities located in areas with very high risk of flooding have greater resilience through partnership projects
8. NZ’s natural hazard management system is fit for purpose with all actors playing their part
9. Future funding arrangements for flood risk become more sustainable
10. Flood risk management projects contribute to COVID-19 economic recovery and community resilience

This document was proactively released by the Minister of Local Government.
Appendix B: Proposed principles that underpin the framework for central government’s role in strengthening community resilience to flood risk and the effects of climate change
Appendix B: Proposed principles that underpin the framework for central government’s role in strengthening community resilience to flood risk and the effects of climate change

<table>
<thead>
<tr>
<th>Principles to drive change</th>
<th>How they would be applied to improve community resilience to flood risk, and actions we would take</th>
</tr>
</thead>
</table>
| **1. Invest in effective risk reduction** | • incentivise flood risk projects that reduce risk  
• avoid flood risk projects that create moral hazard  
• strengthen regulatory settings to limit development in areas at highest risk from flooding  
• take an integrated approach to risk reduction across regulatory systems and management of catchments  
• ensure due diligence processes for urban development and infrastructure consider flood risk and site suitability  
• design assets for resilience, and give consideration to natural infrastructure and environmental outcomes |
| **2. Make risk management decisions at the level closest to the affected community** | • flood risk decisions should be made by those closest to the issue which is generally at the local level where people and communities understand local circumstances  
• facilitate the effective transfer of flood risk science to policy/practice and to local communities  
• undertake action that is proportional to the level of risk  
• ensure risk information is evidence-based and accessible so communities can participate in risk management decision-making |
| **3. Provide effective outcomes for Māori** | • develop effective outcomes for Māori and partnerships with iwi in flood-prone locations to work through solutions  
• recognise the Treaty obligations in flood risk projects |
| **4. Intervene where there is national interest or national benefit** | • develop a new national flood risk funding model that will provide co-investment with local government  
• target COVID stimulus investment for flood risk to national lifeline assets damaged by flood events  
• intervene in flood risk projects where there is significant economy of scale or time constraints, distributional concerns, to protect health and safety, and to protect kaitiakitanga  
• centrally fund flood risk projects with national benefits  
• fund flood risk projects for vulnerable communities developing concerns, to protect health and suffering from repeat flood events where other options have been exhausted |
| **5. Require beneficiaries of risk mitigation to pay** | • require land and asset owners that derive benefit from flood risk infrastructure to contribute funding  
• develop a new funding model where central government contributes to flood protection in the national interest (where specific criteria are met) and uses non-funding levers such as changes to regulatory settings |
| **6. Ensure fairness and equity for communities, including across generations** | • target government intervention and COVID-19 stimulus investment for flood risk in locations at greatest risk from repeat flood events and where local councils have significant affordability issues to manage the risk or where the community is economically vulnerable |