

**Under the Resource Management Act 1991**

**And**

**In the matter of Proposed Plan Change 2 to the Rotorua District Plan**

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**SUMMARY OF EVIDENCE OF CRAIG BATCHELAR**

**Date 21 September 2020**

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## **QUALIFICATIONS, EXPERIENCE AND ROLE**

1. My name is Craig Batchelar. I am a planner and partner at Boffa Miskell Limited. My qualifications, experience and role in the development of proposed Plan Change 2 are outlined in Section 1.3 of the Section 42A Report.

## **SCOPE OF EVIDENCE**

2. This statement:
  - (a) provides a high level summary of proposed Plan Change 2 (the Plan Change);
  - (b) highlights the main issues, submissions and associated recommendations following the general order of submitter appearances; and
  - (c) addresses several matters that have arisen since the Section 42A report was prepared.
3. While the s42A report was prepared by three authors, I am providing a summary of the whole plan change and report. Ms Kate Dahm and Ms Kim Smith are also available to answer questions.

## **PROPOSED PLAN CHANGE 2 - PUKEHANGI HEIGHTS DEVELOPMENT AREA**

4. The purpose of the Plan Change is to provide additional residential land for Rotorua.
5. The Pukehangi Heights Development Area is located to the south west of Pukehāngi Road and Matipo Avenue. Part of the Development Area is zoned as a “Future Growth Area” in the Operative District Plan (ODP). The ODP anticipates that this land would be developed sometime after 2021, with the land to be rezoned “Residential” around that time.
6. The Pukehangi Heights Development Area is identified in the Spatial Plan 2018 as being able to accommodate residential development in the short term.
7. The ODP currently enables development to proceed through a two-step process involving the approval of a development plan followed by a controlled activity subdivision consent. There is no clear guidance on what development outcomes are sought for the area and there are also issues of legal validity for the current rule framework.
8. The Plan Change will provide guidance on what outcomes are sought in relation to development, protection and the provision of infrastructure for the Development Area. The Plan Change will enable residential development to occur on distinct upper

and lower terraces, with rural lifestyle development on the north facing escarpment located between the two terraces. The estimated yield from the Development Area is within the range of 750 – 900 residential units.

9. Two small scale local centres are also proposed that will provide limited commercial services that are readily accessible to residents. Provision is made to enable medium density housing near these centres.
10. The Plan Change comprises:
  - (a) Rezoning of the Lower and Upper Terraces to General Residential (Residential 1) and mid-site escarpment to Rural Lifestyle (Rural 2).
  - (b) Objectives and policies for landscape, urban design, cultural landscape, and natural hazard risk management issues specific to the Pukehāngi Heights Development Area that supplement the general objectives and policies for the Residential 1 Zone and Rural 2 Zone.
  - (c) A Pukehāngi Heights Development Area Structure Plan to guide the future development of the land.
  - (d) Plan rules that address landscape, urban design, cultural landscape, and natural hazard risk and traffic management issues specific to the Pukehāngi Heights Development Area. This includes provisions relating to:
    - (i) Mitigating effects of development on the landscape and visual values of the Lake Rotorua caldera;
    - (ii) Requiring a Stormwater Management Plan and Natural Hazard Risk Assessment as part of any subdivision consent application;
    - (iii) Facilitating small scale convenience retail and childcare at walkable centres adjacent to Pukehāngi Road;
    - (iv) Facilitating small medium density housing areas adjacent to the walkable centres and open space; and
    - (v) Protecting and enhancing identified and future cultural heritage sites and values and recognising cultural identity.
  - (e) Resource consent notification rules are also proposed so that where subdivision and development proposals meet the proposed performance standards, applications for resource consent will not be notified.

## **CULTURE, ARCHAEOLOGY AND HERITAGE**

11. The Plan Change has responded to the identification of cultural values and sites and area of significance by including specific policies and performance standards that seek to protect cultural identity, landscapes and values.
12. Submissions by Te Rūnanga o Ngāti Kearoa Ngāti Tuarā Trust, and supported by other mana whenua, raise concerns about adverse effects on the cultural values from land use, subdivision and development. These concerns extend to sites that may be affected beyond the Development Area, including in the downstream catchment. While an archaeological and cultural assessment addresses known sites, there is uncertainty on how other sites and areas that might be discovered will be addressed. Submissions also seek changes to the engagement processes with iwi and hapu to provide greater scope to influence and gain certainty on related development outcomes.
13. Constructive engagement with submitters has led to the refinement of the provisions being advanced. Several amendments are recommended, recognising and providing for the interests of other Te Arawa iwi and hapu with associations with the cultural landscape including downstream sites and values, and the process and protocols that will be applied if other cultural and archaeological sites and areas are discovered prior to or during site works or development. The performance standards as recommended will apply to both subdivision and land use.
14. Amendments to the non-notification rule are also recommended to require written approval from listed mana whenua entities where an application has potential effects on culturally significant sites, downstream water quantity, downstream water quality or Lake Rotorua water quality.

## **FLOODING AND STORMWATER**

15. As part of the development of the Plan Change, conceptual stormwater management plans applying water sensitive design principles were developed for each of three sites within the Development Area based on interim design assumptions, and a preliminary natural hazard risk assessment was undertaken. This concluded that flood risk within the site is 'low' and the contribution of the site to flooding downstream can be addressed by appropriate mitigation within the Development Area.
16. The Plan Change includes the following provisions to manage stormwater:

- (a) A policy that requires that prior to subdivision and development, a flood risk assessment is completed using a detailed catchment-wide model to show how low flood risk will be achieved and maintained within the Development Area without increasing flood risk to downstream urban areas (Policy 3.1).
  - (b) A Structure Plan that shows the 'indicative' scale and location of stormwater detention areas and the main overland flow paths based on the interim design criteria.
  - (c) A subdivision performance standard for the residential areas and mid-site escarpment that requires completion of a risk assessment that complies with the regional policy statement (A5.2.3.4(8), A5.2.4.4(4));
  - (d) A further subdivision performance standard for the residential areas and mid-site escarpment that requires a catchment based Stormwater Management Plan to be prepared prior to subdivision (A.5.2.3.4.7, A5.2.4.4.5). The performance standards also detail matters to address in the stormwater management plan.
  - (e) A policy requiring the identification of overland flow paths for events greater than the designed flow (Policy 3.1). This policy will also inform the assessment of subdivision applications.
17. The Council recognises that these requirements would be challenging for an applicant (owner and/or developer) to address. The catchment is large and complex, including existing areas of urban development that are subject to flooding. Optimal mitigation for the Development Area is likely to include offsite measures on land that is not owned and controlled by an applicant.
18. For this reason, and to promote residential land supply, active steps have been taken by the Council to lead catchment management planning and risk assessment. The strategy is that the Stormwater Management Plan development and risk assessment required by the Plan Change would be undertaken by Council before any application for development was made. Council also intends leading an application for a comprehensive stormwater discharge consent to enable development to take place.
19. Several submissions raise concerns that the Plan Change does not adequately consider the cumulative effects of the proposal on flooding in Utuhina catchment, in particular in the lower catchment reaches. Many of these submissions seek further assessment

of downstream flooding effects, including further modelling, to establish that flood risk to downstream urban areas will not be increased, or will be reduced. Some submissions seek a stronger policy direction and that the Council should refuse consent to proposals that will result in an increased downstream flood risk.

20. The process and outcomes achieved on stormwater management since the Plan Change was notified are described in the WSP Stormwater Report (Stormwater Report) from Liam Foster,<sup>1</sup> a Technical Principal from WSP engaged by the Council. The report includes information on the mitigation now being considered following further assessment and modelling. The area of the indicative attenuation basins or ponds within the Development Area will need to be significantly greater than that shown on the Structure Plan as publicly notified. The scale of increase is from approximately 6ha to 14ha. The Stormwater Report explains the reasons for this increase. The modelling results show that the existing peak flows will be reduced following development although the flow rate will remain elevated for a longer period compared to the existing condition.
21. The Stormwater Report has been updated and amended since the Section 42A Report was drafted, following expert conferencing/caucusing and the completion of further modelling work. The updated Stormwater Report is appended to Liam Foster's Statement of Evidence.
22. The outcomes of expert conferencing are set out in the Joint Witness Statement – Stormwater dated 1 September 2020. The experts agreed that the stormwater analyses and assumptions were "*appropriately conservative*" rather than being "*overly conservative*" as described in the Stormwater Report. The Stormwater Report has been amended accordingly. The comments included in Paras 8.242-8.249 of the Section 42A Report should be read subject to this changed context.
23. It was also agreed that further modelling was required that included more appropriate pond drain-down times.
24. The overall findings of the revised Stormwater Report are essentially the same as the initial report. Provided there is appropriate design within the Development Area, with

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<sup>1</sup> Opus International Consultants, 19 August 2020. PC 2 Pukehāngi Heights Stormwater Report. *Prepared for Rotorua Lakes Council (RDC-1046337)*.

mitigation measures such as those presented in the report, there will be no significant increases to downstream flood hazard. By reducing the potential for overland flow paths and reducing the peak flow from the sites, the development can have a neutral or positive effect on the main urban stormwater networks and riverine environments, up to and including the 1% AEP plus climate change event<sup>2</sup>.

25. The report provides a concept level identification of potential mitigation using attenuation basins, rather than providing the detailed design information needed for consenting and construction purposes. Future investigations to support the preliminary and detailed design of stormwater approaches across the Development Area will need to include:
  - (a) Further soakage and geotechnical investigations to support stormwater infrastructure design, including appropriate basin design and dam safety assessments;
  - (b) Refinements to the potential development form, including ground levels and layout, though an integrated design approach that responds to other requirements, including levels of imperviousness, nitrogen requirements and the delivery of a water sensitive design led approach;
  - (c) Investigations as to the condition of existing key assets and overland flow paths downstream of the Development Area to determine suitability for the development flows to pass through them, including the passage of the over-design event.
26. I have considered the amended Stormwater Report and its implications for the proposed Plan Change. While the scope of the proposed subdivision performance standards as recommended for stormwater management generally encompass the matters that require further investigation, in my opinion there is a benefit of additional certainty from having more specific performance standards.
27. Revised provisions are set out in Attachment A shown dashed underlined. This document also includes the revisions as recommended in the Section 42A Report shown solid underlined. Amendments are recommended to confirm the intention that

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<sup>2</sup> Section 7 p36, Opus Stormwater Report Rev 3.

the Stormwater Management Plan is for the full Development Area and effects on the Utuhina Catchment for its full reach downstream to the Lake.

28. Other recommended amendments would make subdivision that does not meet the performance standards a non-complying activity.
29. I have read the evidence from BOPRC technical and planning experts. Amongst other things, BOPRC seek inclusion of detailed design criteria as applied to the modelling in the Stormwater Report. The advice received from RLC stormwater experts Mr. Foster and Mr. Pennington, is that these criteria are not necessarily appropriate for preliminary and final design and that scope for greater flexibility is needed to allow best practice methods to be applied.

#### **LAKE ROTORUA NUTRIENT MANAGEMENT**

30. Plan Change 2 makes no specific provision for nutrient management relating to nitrogen losses to Lake Rotorua. Management of nutrient effects from the Pukehāngi Heights Development Area was considered during development of the Plan Change but understood to be adequately addressed through the general subdivision and development provisions of the Operative District Plan and other allied processes, including under the Wastewater Treatment Plant Nitrogen Accounting Memorandum of Understanding.
31. Several submitters have raised concerns that potential increases in nutrient levels to Lake Rotorua as a result of the land use change from rural to urban have not been adequately assessed and managed through the Plan Change. BOPRC submissions go further in seeking specific provisions to address the issue of nutrient losses from urban development.
32. Plan Change 10 to the NRRP was largely resolved by consent order in June 2020 and promotes integrated management of nutrients. It includes policies that acknowledge that the sustainable annual nitrogen load for Lake Rotorua provides for nitrogen losses from both rural and urban land, and the increased demand on infrastructure as a consequence of urban growth. Methods include the Regional Council implementing an accounting methodology for the shift in nitrogen losses between rural and urban land uses.
33. The Operative District Plan already recognises the District Council role is “complementary” to the Regional Council role of controlling nutrient discharge from



land use activities. A Memorandum of Understanding between District Council, Regional Council and Te Arawa Lakes Trust records that Council will consider a District Plan change to impose a requirement on developers to transfer nitrogen from a parent lot to offset losses from urban land use change and to establish a regime to create and fund nitrogen offsets where transfers of nitrogen are not possible.

34. In this context, and given the strategic significance of nutrient management, the existing provisions for urban nutrient management are not appropriate. The appropriate approach is to include additional provisions in the Plan Change consistent with the amendments sought by the BOPRC submission, albeit that this issue will need to be addressed for the whole urban area in the medium term.
35. A locality specific “no net increase” objective for urban subdivision is recommended that will contribute in the manner anticipated by the regional policy framework to achieve an overall reduction.
36. Amendments are recommended to include additional policies and performance standards (requiring a site-specific Nitrogen Management Plan) to ensure that there will be no net increase in nutrient losses following development.
37. It is also noted that the Council is currently working on proposals for a nitrogen offsetting regime through its Long Term Plan. This will provide a pathway for development to occur where transfers of nitrogen are not possible.

#### **APPROPRIATENESS OF RURAL 2 ZONE**

38. Related to the submission on nutrient management, is a submission by BOPRC seeking that Council amend the Rural 2 zoning of the escarpment and remove potentially inappropriate activities on steep escarpments such as ‘farming activities’ and their associated nutrients. This submission is supported in part. While the Rural 2 zoning is assessed as appropriate, it is agreed that farming should be generally excluded for the reasons outlined in the submission.

#### **TRANSPORT AND THE ROAD NETWORK**

39. The potential traffic effects of development enabled by the Plan Change were assessed by Grant Smith of Stantec during the preparation of the Plan Change. This assessment concluded that traffic flows from the development will be relatively low with no significant delays to traffic turning in or out of the development, or on the performance of the wider network.

40. The Plan Change contains:
- (a) Principles and policies that seek to maintain connectivity, safety and amenity for vehicular and active modes within the capacity of the road network. A low speed traffic environment within the Development Area is promoted.;
  - (b) A Structure Plan with an indicative primary road network, walkways and cycleways, and appropriate locations for intersections to guide development. Local roads additional to those shown on the Structure Plan will also need to be provided to accommodate the planned development;
  - (c) Performance standards to address specific construction and development traffic effects on Matipo Avenue. These standards came from a detailed assessment, consideration of options and engagement with affected local residents.
41. In the development of the Plan Change, effects on the wider network were assessed. No provisions were identified as being necessary.

#### **State Highway Effects**

42. The Transport Agency's submission seeks further analysis of the impact of development on several State Highway 5 intersections. The Transport Agency's further submission seeks that measures be included in the District Plan to address state highway safety and efficiency.
43. Council commissioned a further assessment of the impacts of housing growth on State Highway intersections, focusing on the Malfroy Road intersection as the main intersection of concern to NZTA. Existing data shows the intersection already has a low level of service in peak hours. The Stantec Traffic Assessment estimates that the household growth considered would result in a 3.5% increase in peak hour traffic volumes at the intersection, with the Malfroy Road west leg increasing by about 10%. Higher increases could result if a higher yield was achieved. With the Pukehangi and other background growth assumed, Stantec concluded that the intersection will be close to or at capacity.
44. The Council is planning an upgrade of this intersection (adding turning lanes) irrespective of Plan Change 2. The Council has purchased properties as they come on the market to obtain the land needed to widen the intersection. The project is identified in the Land Transport Activity Management Plan and capital funding is

provided in the Long-Term Plan. This meets the 'infrastructure ready' requirements for the National Policy Statement for Urban Development 2020. In this context there is no need to impose any related development standards in Plan Change 2. No amendments to the Plan Changes are recommended.

### **Matipo Avenue**

45. Traffic issues for Matipo Avenue were identified during development of the Plan Change. The provisions relating to Matipo Avenue recognise concerns about traffic safety from construction and development traffic and seek to balance these interests with the interests of the Te Arawa Group Holdings land which has legal and physical access from Matipo Avenue.
46. Submitters have raised concerns about the linking of upper Matipo Avenue with the Te Arawa Group Holdings land via an 'additional primary road connection'. Concerns relate to safety, privacy and amenity considerations and the potential to exacerbate road design issues.
47. The Stantec Traffic Assessment concludes that the layout provided in the Structure Plan will result in less vehicle movements on Matipo Avenue than those enabled under the existing Twin Oaks Development Plan provisions in the Operative District Plan and will comply with Council's engineering standards for traffic volumes and carriageway widths on Matipo Avenue. Previous road safety audits have identified minor non-compliance with sight stopping distances. The benefits of connectivity are also acknowledged.
48. No amendments to the plan change are recommended.

### **LANDSCAPE AND AMENITY**

49. Urban and rural landscape character and the interface with surrounding land use have been carefully considered and integrated into the Plan Change. The Plan Change provisions align built form to the visual sensitivity of the landform features and promote planting and other design measures to integrate the development with surrounding area. Development of the visually prominent escarpment will be limited to low intensity density residential activities, coupled with extensive revegetation, subject to specific landscape assessment and design responses.
50. Several submissions raise concerns about the general loss of rural character and amenity, and the visual effects of urban development.

51. There will be a loss of rural amenity in the immediate area. However, at a broader scale the character of the significant “caldera rim” landscape feature will be maintained. The change in character is not inappropriate given the context of the site adjoining existing urban development.
52. Importantly, the NPS on Urban Development acknowledges that the planning of the future urban form to provide development capacity may involve changes to an area that detract from some amenity values but may have positive impacts on other amenity values through the provision of housing.
53. Some amendments to the Plan Change are recommended to impose more stringent reflectivity standards on roofs within the Residential 1 Escarpment Transition Area 1 and Rural 2 Zone.

#### **DEMAND FOR RESIDENTIAL LAND AND AFFORDABLE HOUSING**

54. The Council is actively pursuing a broad strategy to address serious housing access and affordability issues in Rotorua, alongside Te Arawa and Central Government. The Plan Change has a part to play in this, consistent with the National Policy Statement on Urban Development.
55. Several submitters have raised concerns about affordable housing and housing supply and some question the effectiveness of the Plan Change in addressing this issue.
56. The District Plan has limited scope to directly address affordability issues and housing supply issues. The Plan Change will supply additional land for housing, and provisions have been included to encourage medium density development with the intention that this may result in more affordable housing. Significant effort has been made to resolve planning and development issues up front, with the intention that this will enable land to come to the market with greater certainty and in a more timely manner.
57. No amendments to the Plan Change are recommended.

#### **WATER QUALITY AND STORMWATER**

58. The Plan Change applies the principle of comprehensively designed low impact stormwater management integrated with development. Policies require the development of a “treatment train” using measures that distribute stormwater management across the site, incorporating water treatment throughout to protect the receiving waters of the Utuhina Stream and Lake Rotorua.

59. Submissions support low impact stormwater design policy but raise concern that this policy sits under an objective that does not protect environmental quality outside of the structure plan area. Submissions question the effectiveness of the plan change in protecting water quality downstream.
60. There is sufficient objective guidance already within the Operative District Plan and Regional Plan, coupled with the Urban Design Integration Objective and associated stormwater management policy, to ensure low impact design principles are adhered to within the Pukehāngi Heights Development Area, and that offsite effects are addressed. No amendments are recommended.
61. As discussed above, the Plan Change requires a Stormwater Management Plan to be prepared as a performance standard for subdivision and is to address various matters including an assessment of the effects on stormwater quality and proposals for management of stormwater quality. Conceptual design by WSP Opus that has informed development of the Structure Plan places a strong emphasis on protecting water quality.
62. The amendments recommended to address flooding issues will also apply to water quality issues in terms of the need for a comprehensive integrated approach across the Development Area and a non-complying activity status applying where performance standards are not met

#### **WATER SUPPLY**

63. Several submissions raise concerns about the source of water and adequacy of supply, including effects on existing levels of service. These issues have been considered in detail by Council water asset managers. No amendments are recommended to the Plan Change in relation to water supply issues.

#### **REVERSE SENSITIVITY EFFECTS - SPEEDWAY**

64. The Plan Change area is located, at its closest point, 600m from the Rotorua Speedway. The speedway holds approximately 25 meetings per year, which generate noise levels that exceed residential limits at some locations. There are no provisions in the Plan Change to address this issue.
65. Rotorua Stock Car Club Inc submitted that, as motor racing may result in higher noise levels in the area to be rezoned, any title issued within the Development Area should include a proviso that there are existing use rights for motor racing.

66. Based on advice from an Acoustic Engineer, an additional policy is recommended to ensure that noise emission from the Rotorua Speedway is considered during subdivision and that measures are taken to reduce the potential for reverse sensitivity effects on the speedway and achieve an appropriate noise environment for residents. A corresponding change to the structure plan is also proposed to show an area where this policy would apply (the Sumner Block to be called 'Area C').

#### **INCLUSION OF ADDITIONAL LAND FOR MEDIUM DENSITY RESIDENTIAL DEVELOPMENT**

67. A submission by Freedom Villages sought inclusion of land neighbouring the Development Area to be zoned for medium density residential development (a retirement village). (See Section 42A Report (Paragraph 8.522-.8.586). While the submission was assessed as having some planning merit, legal advice is that the submission cannot be accepted due to it being outside the scope of the Plan Change.
68. The submission has since been withdrawn. The proposed development of the subject site is proceeding through a Resource Consent application.
69. Development of the site for a retirement village has been taken into account in recent noise, visual, stormwater and traffic assessments for the Plan Change. This is not considered detrimental and recognises the foreseeability of development albeit via another development pathway and enables cumulative effects to be appropriately assessed.

#### **NON-NOTIFICATION PROVISIONS**

70. The Plan Change proposed non-notification rules for a range of activities including Restricted Discretionary Activity subdivisions in the Residential and Rural Residential zones.
71. Submitters have requested that the non-notification rules are reworded to provide for tangata whenua as affected parties. Following discussions with Te Rūnanga o Ngāti Kearoa Ngāti Tuarā Trust, Ngāti Whakaue and Te Arawa Lakes Trust amendments are recommended to the non-notification rules requiring the written approval of these parties to avoid the need for limited notification. However, this requirement will only apply to applications that have potential effects on cultural sites, downstream water quality and quantity, including water quality in Lake Rotorua.
72. These amendments recognise the cultural history of the site, and the significance of both the downstream environment and Lake Rotorua to these groups.



## **Attachment A**

### **Policies**

#### *Policy 2.3 Integration of Land Use and Stormwater Management*

*Provide for integrated management of land use and stormwater by:*

- *Management of water quality and quantity through the application of low impact design principles with the development of a “treatment train” using measures that distribute stormwater management across the site including:*
  - *Source Control - individual lot level stormwater management approaches such as soak holes for capturing roof runoff, rain gardens, rainwater harvesting;*
  - *Site Control – collecting and conveying runoff from a collection of lots through to smaller stormwater management facilities such as dry attenuation zones, swales, through to;*
  - *Regional Control - larger dedicated catchment facilities, such as detention basins, ponds and wetlands.*
- *Designing stormwater infiltration measures based on a geotechnical assessment to achieve and maintain a low level of risk of landslip or liquefaction within the Development Area without increasing risk elsewhere;*
- *Minimising the formed width of roads to reduce stormwater run-off while ensuring that road function and safety is maintained;*
- *Integrating the use of open space for stormwater management and recreation including the provision and protection of adequate space to safely accommodate detention ponds and overland flow paths; and*
- *Ensuring that appropriate stormwater infrastructure is provided at the right time and that costs are shared on an equitable basis.*

#### *Policy 3.1 Flooding and Stormwater*

*Ensure that risk from flooding is managed by:*



- *Prior to subdivision and development, undertaking a flood risk assessment using a detailed catchment-wide model (which may include detailed hydrological and hydraulic modelling and hazard mitigation) to show how low flood risk will be achieved and maintained within the Development Area without increasing flood risk to downstream urban areas;*
- *~~Providing~~ Identifying and protecting overland flow paths for extreme rainfall events (0.2% AEP) ~~that are greater than that designed for~~; and*
- *Providing for other treatment measures that may arise because of site specific assessments.*

### **Performance Standards**

*4 A Stormwater Management Plan shall be provided which shall address;*

- *The scale and form (including ground levels and layout) of foreseeable urban development in the ~~applicable catchment~~ Development Area and the downstream catchment;*
- *An assessment of effects on stormwater water quality and quantity, including erosion and flooding hazards, in the ~~applicable~~ Utuhina catchment for the full reach downstream to Lake Rotorua;*
- *Proposals for management of stormwater water quality and quantity, including consideration of further soakage and imperviousness, basin design and dam safety assessments, and protection of overland flow paths from inappropriate development;*
- *The sensitivity of proposed stormwater management measures to the staging of development in the Development Area;*
- *The potential effects of stormwater management measures on land stability and liquefaction;*
- *Infrastructural assets to be vested in the council;*
- *The condition of existing infrastructural assets;*
- *The potential effects on overland flow paths downstream of the Development Area, and*

- *Staging and timing for the provision and vesting and/or upgrading and replacement of infrastructural assets.*

## *5 Natural Hazard Risk Management*

*A Natural Hazard Risk Assessment that complies with Regional Policy Statement Appendix L – Methodology for Risk Assessment shall be provided which shall confirm that a low level of level of risk will be achieved within the Development Area without increasing risk elsewhere:*

- *Flooding; and*
- *Land instability and liquefaction.*