



THE PROPOSED
**SECOND
GENERATION
DISTRICT PLAN**

Dunedin City Council, 50 The Octagon, Dunedin 9016
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Website: www.dunedin.govt.nz/2gp

PROPOSED VARIATION 2 (ADDITIONAL HOUSING CAPACITY) TO THE 2GP

MINUTE 9

Update on Hearing 3 – Reporting Officer’s Report on Outstanding Matters

From: The Chairperson, Variation 2 (Additional Housing Capacity) Hearing Panel

To: Submitters on stormwater management provisions

Date: 16 February 2022

1. The Reporting Officer has provided a further Report on two matters she considers were outstanding, or at least not addressed fully, from her Closing Statement dated 10 December 2021 which was delivered on the final day of Hearing 3. The report (dated 3 February 2022) is attached.
2. The two matters now reported on more fully are:
 - (a) NDMA’s over areas with subdivision consents; and
 - (b) Multiple landowners in NDMA’s.
3. Whilst these matters were well canvassed at the hearing, the Panel considers it only fair that submitters on the stormwater management provisions be given an opportunity to review this report, and the recommendations it contains, and to make comment if they wish to do so.
4. My inclination is for the Panel to review any written responses that may be received ‘on the papers’ rather than re-convening Hearing 3.
5. Can you please submit any comments you may have on the 3 February report in writing to Jenny Lapham or by email gso@dcc.govt.nz by **25 February 2022**.
6. If you have any questions regarding this Minute please phone Jenny Lapham on 477-4000

Gary Rae, **Chairperson**
on behalf of the Variation 2 Hearing Panel

16 February 2022



SECOND GENERATION DISTRICT PLAN

Variation 2 Additional Housing Capacity Part 2b – 3 Waters Provisions

Reporting Officer's Reply on Outstanding Matters

Emily McEwan

3 February 2022

1.0 Introduction

1. In this document, I address two issues outlined in my Closing Statement in further detail, plus an additional issue.
2. The two issues initially outlined on page 7 of my Closing Statement regard:
 - development when a subdivision consent is already granted within a new development mapped area (NDMA); and
 - where there are multiple landowners within an NDMA.
3. Upon further investigation, a further related issue has become apparent, being whether it is always appropriate to require stormwater management system design for a whole NDMA, especially where the NDMA contains two or more hydrologically separate parts (i.e., where the NDMA is divided by elevated topography).
4. The above three issues are addressed in the following sections.

2.0 NDMA's over areas with Subdivision Consent

2.1 Background

5. In my closing statement, I noted that the NDMA provisions over existing residential zoned land may frustrate development where a subdivision consent is already granted, if amendments are not made. This is because Rule 9.3.7.AA on service connections would apply.
6. The drafting for Rule 9.3.7.AA recommended in the Section 42A Report is:

Amend Rule 9.3.7.AA as follows:

9.3.7.AA Stormwater for development

- a. In a new development mapped area, all development that creates an impermeable surface and new roads or additions or alterations to existing roads must:
 - i. connect to an integrated ~~communal~~ stormwater management system that services the new development mapped area and meets the requirements set out in Rule 9.9.X; except:
 1. prior to the integrated ~~communal~~ stormwater management system being installed, any development that creates less than 60m² of impermeable surface is exempt from this standard.
- b. Activities that contravene this performance standard are restricted discretionary activities.

7. Rule 9.3.7.AA was included in Variation 2 so that where land in an NDMA is proposed for development prior to subdivision, a stormwater management plan can be assessed via a consent process.
8. Where a subdivision (approved prior to decisions on Variation 2) is completed, and resultant lots are to be built on (after decisions on Variation 2 to impose the NDMA), development which does not meet Rule 9.3.7.AA would require a resource consent. This would inappropriately frustrate the development, especially when stormwater effects would already have been considered through the subdivision consent process.
9. An example of where this could occur is for the building of a house, that would otherwise likely be a permitted activity. The need for consent could be triggered because the house creates 60m² or more of impermeable surface and:

- the development does not connect to a stormwater management system; or
- the stormwater management system does not meet the criteria in Rule 9.9.X.

2.2 Options to resolve the issue

10. To resolve the above issue, my closing statement recommended addition of a further exception to Rule 9.3.7.AA for “residential buildings on lots of less than 1000m² created by subdivision consent approved prior to [xxx date of decision on Variation 2]” or similar.
11. I have also since considered the option of deleting Rule 9.3.7.AA altogether, and instead rely on the assessment of stormwater effects through other proposed Plan rules. However, there would be risks associated with this approach, including that:
 - permitted development could occur without stormwater effects being considered; and
 - the proposed Plan rules for stormwater management may not be given enough weight in the consenting process should they become subject to appeal. This is because proposed rules that are subject to appeal cannot be deemed operative and only have ‘legal effect’. This means they still need to be weighed against the current plan provisions.
12. I also note that ORC submitted on Rule 9.3.7.AA seeking for it to be stricter, rather than being deleted.
13. Overall, to manage the risk of gaps in stormwater management arising, I still recommend the option outlined in my closing statement. Drafting for this is shown below and this should be circulated amongst the parties who submitted on stormwater management provisions for NDMAs, prior to a decision being made, as this is new material since the Section 42A Report was written.
14. I note that the recommended drafting refers to lots of less than 1000m² so that the exception applies to lots that could only be further subdivided under the current provisions for the General Residential 1 Zone as a non-complying activity (i.e., to lots intended for residential development without further subdivision). Therefore, large balance lots (greater than 1000m²) arising from a subdivision granted prior to a Variation 2 decision would still be subject to proposed Rule 9.3.7.AA to ensure that future development or subdivision of these areas connects to a stormwater management system that meets the requirements of Rule 9.9.X.

2.3 Recommended amendments

15. Amend Rule 9.3.7.AA as follows (additional amendments shaded grey – note the deletion of the term ‘integrated’ is explained in Section 4.0 below; addition of the term ‘activities’ is to clarify that it relates to a defined set of activities):

9.3.7.AA Stormwater for development

- a. In a **new development mapped area**, all development **activities** that creates an impermeable surface and new roads or additions or alterations to existing roads must:
 - i. connect to an ~~integrated communal~~ stormwater management system that services the **new development mapped area** and meets the requirements set out in Rule 9.9.X; except:
 1. prior to the ~~integrated communal~~ stormwater management system being installed, any development that creates less than 60m² of impermeable surface is exempt from this standard; and
 2. any development activities that create an impermeable surface on lots of less than 1000m² that were created by a subdivision consent approved prior to [xxx date of decision on Variation 2] are exempt from this standard.
- b. Activities that contravene this performance standard are restricted discretionary activities.

3.0 Multiple Landowners in NDMA's

16. In my closing statement, I recommended amendments to the requirement for all landowners in an NDMA to agree to a stormwater management plan (para. 45). This was to account for scenarios where there may be small strips of land included in an NDMA (for example, access to sites outside the NDMA) or a landowner of a smaller parcel not agreeing to the plan, and in response to representatives for developers (Ms Peters and Mr Bowen) who expressed concern regarding the practicalities of obtaining written approvals prior to an application for subdivision being accepted for processing.
17. As an example of amendments that could be made, I suggested the possibility of amending the requirement for agreement to be imposed over ownership of 90% of the land area within the NDMA (if DCC 3 Waters experts advised that this approach is appropriate).
18. I have now given further thought to the types of amendments that could be made and now prefer alternative amendments to the '90% land area' suggestion made in my closing statement. My primary reason for promoting alternative amendments is due to feedback from DCC 3 Waters experts that the '90% land area' approach would be arbitrary.
19. My recommended alternative amendments are set out below. DCC 3 Waters experts have reviewed this approach, and, in their opinion, it still sets a high bar in aiming for the agreement of landowners and the objective of integrated stormwater management across NDMA's, and, in combination with the changes recommended in Section 4.0 below, provides some reasoned flexibility where an NDMA can be divided into separate hydrological areas.
20. My recommended drafting removes the relevant written approval wording from Rule 9.9.X.3.i and replaces it with a similar rule in Rule 15.4 on notification. This approach disentangles the concept of 'consensus within the NDMA on the stormwater management approach' from 'whether the stormwater management approach is acceptable to Council'. In my view, this approach more appropriately relies on the usual mechanisms for assessing whether other landowners are an affected person, rather than conflating it with the suitability of proposed stormwater mitigation measures, as is the primary focus of Rule 9.9.X.
21. The approach means that if an application is lodged without the relevant written approvals, the application will still be processed (rather than rejected as incomplete), albeit that it may be limited notified to other landowners within the NDMA.
22. I consider that a notification rule is appropriate to ensure engagement between landowners within an NDMA so that any integrated stormwater management plan or stormwater management system design submitted to Council does not result in unworkable limitations being placed on other landowners without their knowledge or input.
23. The recommended drafting should be circulated to all parties who submitted on the stormwater management provisions for NDMA's, as the recommendation includes new content compared to the Section 42A Report and Closing Statement.

3.1 Recommended amendments

24. Add rule 15.4.Y on notification of landowners within an NDMA, as follows:

<u>Y. With respect to resource consent applications in a new development mapped area that include a new or modified integrated stormwater management plan or details for a stormwater management system as required by Rule 9.9.X, any owners of land within the area to which the proposed plan or system relates will be considered an affected person in accordance with section 95B of the RMA where their written approval is not provided.</u>
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25. Amend Rule 9.9.x.3.i as shown in Section 5.0.

26. Add to the advice in Note 9.9.XA regarding the notification rule as follows:

7. For consent applications in a **new development mapped area** that require the submission of a stormwater management plan, other landowners within the **new development mapped area** will be considered an affected person in accordance with Rule 15.4.Y.

4.0 SWMP and integrated SW management system for ‘whole NDMA’

27. A further potential issue with implementation of Rule 9.9.X that has come to light is the requirement for a stormwater management plan and associated design for an integrated stormwater management system to be for the whole NDMA. This issue extends from the concerns raised at the hearing by representatives for landowners (Ms Peters and Mr Bowen) about NDMA's with multiple landowners (paragraph 19 of their evidence). In particular, their concerns over situations where NDMA's are divided by elevated contours, which may mean separate stormwater management systems could be appropriate.
28. Regarding stormwater management plans, evidence from 3 Waters is clear that these should always address the whole of the NDMA, irrespective of whether multiple stormwater management systems are appropriate across the NDMA or whether all landowner approvals are provided. The reasons for SWMPs needing to be for the whole NDMA are because it is necessary to demonstrate whether:
- there are hydrologically separate parts within the NDMA for which separate stormwater management systems would be appropriate;
 - Policy 9.2.1.Y is met (which relates to the whole NDMA); and
 - the proposed stormwater management systems are integrated with other parts of the informal and formal stormwater network.
29. Regarding stormwater management systems, evidence from 3 Waters suggests that multiple systems could be appropriate where parts of an NDMA are hydrologically separate from other parts of the NDMA.
30. Overall, 3 Waters are now of the view that it is more appropriate to use the term “integrated” for stormwater management plans (which must cover the whole NDMA) rather than the associated stormwater management systems (which may be for a hydrologically separate part of an NDMA). They consider that this would better reflect the overall approach.
31. Therefore, I recommend making the following amendments:
- amending the terminology used throughout the proposed NDMA stormwater management provisions to refer to “integrated stormwater management plan” and “stormwater management system” (rather than “integrated stormwater management system”, as recommended in the Section 42A Report);
 - amending Rule 9.9.X so that an application only needs to provide a stormwater management system design for the hydrologically connected part/s of the NDMA to which the subdivision relates (as a minimum). This could provide more flexibility for NDMA's where there are multiple landowners that may not wish to subdivide at the same time. In this case, one applicant could provide detailed design of the stormwater management system for only one area of the NDMA, as long as that area was hydrologically separate from other parts of the NDMA;
 - amending Policy 9.2.1.Y to provide for stormwater management systems to not be for the whole NDMA where the NDMA is divided into hydrologically separate parts; and
 - amending Policy 9.2.1.Y to remove some of the detailed requirements about installation of stormwater management systems, as these more appropriately sit in Rule 9.9.X, not the policy.

32. Some additional amendments to Rule 9.9.X are also recommended to improve the structure, correct errors, and use more appropriate terminology. These changes are considered to be of minor effect and will assist in Plan implementation.
33. The recommended drafting should be circulated to all parties who submitted on the stormwater management provisions for NDMAs, as the recommendation includes new content compared to the Section 42A Report and Closing Statement.

4.1 Recommended amendments

34. Amend Policy 9.2.1.Y (version recommended in the Section 42A Report – additional changes shaded grey) as follows:

Only allow subdivision activities in a **new development mapped area** where:

- a. an ~~on-site~~ integrated stormwater management ~~system plan~~ that is designed for the whole NDMA has been prepared, and stormwater management system(s) for all parts of the NDMA that are hydrologically connected to the area proposed for subdivision is installed in full or in planned stages prior to development will ensure there is no increase in the pre-development peak stormwater discharge rate from the site into the stormwater public infrastructure, or into a private stormwater system (at any point); or,
- b. where this is not practicable, any adverse effects from an increase in discharge on the stormwater system ~~public infrastructure~~ are no more than minor.

35. Consequential changes because of the Policy 9.2.1.Y amendment.
36. Add a definition of ‘hydrologically connected’ as follows:

Hydrologically Connected

For the purposes of stormwater management in a **new development mapped area**, the parts of an NDMA from which stormwater runoff leaves the NDMA in the same area.

37. Amend Rule 9.9.X. as shown in Section 5.0 of this report.
38. Amend various provisions within Change F2-2 to remove “integrated” from stormwater management systems and add it to “integrated stormwater management plan” (full list of changes yet to be identified).

5.0 Updated Version of Rule 9.9.X with Recommendations

9.9.X Stormwater management

1. In a **new development mapped area**, applications for the following activities must include a proposed integrated stormwater management plan that addresses the whole NDMA, demonstrates how Policy 9.2.1.Y will be achieved, and is prepared in accordance with clauses 34 to 6 of this rule, unless such a plan has already been approved as part of an earlier subdivision or land use consent, an earlier approved land use or subdivision consent includes such a plan, prepared in accordance with this rule:
 - a. subdivision;
 - b. multi-unit development;
 - c. supported living facilities; or
 - d. development that contravenes Rule 9.3.7.AA (service connections – stormwater management for development) ~~and~~.
2. Where an integrated stormwater management plan has already been provided in accordance with this rule as part of an earlier approved consent, but did not include design details for stormwater management systems for any part of the new development mapped area that the current proposal is in, applications for the activities set out in clauses 1 (a) to (d) must provide those details in accordance with clauses 5 to 6 of this rule in a way that is consistent with the integrated stormwater management plan approved as part of the earlier consent.
3. Outside a **new development mapped area**, applications for consent that include the following activities must provide details of how stormwater will be managed in accordance with clause ~~47~~ of this rule:
 - a. subdivision that may lead to new residential development;
 - b. development that contravenes of the impermeable surfaces performance standard;
 - c. multi-unit development; or
 - d. supported living facilities.
4. Integrated stormwater management plans required for new development mapped areas must meet the following requirements:
 - a. Address the whole NDMA and demonstrate how Policy 9.2.1.Y will be achieved.
 - ~~b. The stormwater management plan must include provisions of an integrated stormwater management system that is designed for the whole structure plan mapped area and is installed in full or in planned stages prior to development. Provide details of all stormwater management systems for the hydrologically connected parts of the new development mapped area in which the proposal is located and details of how those systems will be installed in full or in planned stages prior to development.~~
 - c. ~~The stormwater management plan must ensure that stormwater will be managed for both the current climatic conditions and climatic conditions based on climate change projections predictions.~~
 - d. ~~The integrated stormwater management systems must ensure that:~~
 - i. there is no increase in the pre-development peak stormwater discharge rate from the site into the stormwater public infrastructure, or into a private, Otago Regional Council, or natural/informal stormwater system (at any point); or,
 - ii. where this is not practicable, any adverse effects from an increase in discharge on the stormwater system are no more than minor.
 - e. ~~The stormwater management plan must include stormwater detention infrastructure that is designed to temporarily store and release flows from a generated 1% AEP rainfall event, such that peak pre-development flows are not exceeded in the post-development condition.~~
 - ~~f. The stormwater management plan must:~~
 - i. ~~include the use of low-impact (or water-sensitive) design features, which may include features such as:~~
 1. grassed/landscaped swales and other vegetation areas;

2. infiltration trenches/bio-retention systems;
 3. storage ponds/wetlands/sediment ponds;
 4. rainwater tanks, harvesting and reuse;
 5. rain gardens, rooftop greening and planting, and [rejoin clause]porous surface treatments; and
 6. consideration of the existing natural topography and the natural course of water flow (overland flow paths) through the design of the subdivision; and
- ii. consider whether stormwater management areas can be integrated into reserves and recreation spaces.
- g. ~~The stormwater management plan must~~ include an assessment of the difference between pre-development peak flows and post-development peak flows (with and without mitigation) over a range of event durations, taking into account the maximum impermeable surfaces permitted in the District Plan zone for the mapped area (and including any other development restrictions resulting from any other rules in the District Plan or legal instruments registered on the title(s) for the mapped area). This assessment must meet the following criteria:
 - i. The assessment of pre-development and post-development flows and detention volumes must be based on the 10% and the 1% annual exceedance probability (AEP) rainfall events, covering durations from the mapped area's own critical duration to the critical duration of the catchment upstream of the point of discharge (unless agreed otherwise with the DCC, for example where direct discharge to the coastal environment is feasible).
 - ii. For the purposes of this requirement, 'critical duration' means the duration of rainfall event likely to cause the highest peak flows or water levels.
 - iii. The assessment must take account of climate change, using the climate adjustment rainfall sourced from HIRDS version 4 using RCP 8.5 2081-2100 values (or an alternative source approved by DCC).
 - iv. Include a risk based assessment to determine to what extent measures (if any) are needed to manage flows downstream of the land. The stormwater management plan must demonstrate that the proposed stormwater mitigation and management measures will not create or exacerbate adverse effects that are more than minor off-site. This includes consideration of cumulative effects;
 - v. Where any proposed attenuation system is intended to vest as public infrastructure, the design must incorporate an adjustable outlet mechanism such that the present day peak discharge flow rate from the Land is not exceeded as a result of the development but that the outlet can be progressively adjusted for future climate change discharge rates up to the fully developed stormwater management system design capacity.
 - vi. For the sake of clarity, the integrated stormwater management plan does not need to avoid volume increases.
5. ~~The stormwater management plan must~~ Applications must include the following design details for proposed stormwater management systems:
 - a. include the design and location of 'primary infrastructure' ('primary infrastructure' includes both open and closed conduits and must be designed to contain the flows generated by the 10% AEP rainfall event);
 - b. include the design and location of 'secondary flow paths', with and without blockage of the primary stormwater system, through the development to the downstream boundary. 'Secondary flow paths' means the flow path over which surface water will flow if the primary flow path becomes overloaded or inoperative and consists of overland flow paths with sufficient capacity to transfer the flows generated by rainfall events up to the 1% AEP event. Secondary flow paths shall be clearly identified, and where possible aligned with natural flow paths and located on public land. If located in private property, 1% AEP secondary flows should be through primary infrastructure unless protected by an easement. The stormwater management plan must demonstrate that secondary flows at the development's upstream and downstream boundaries are not changed or adversely affected;
 - c. propose stormwater management infrastructure that is designed to enable safe operation in super-

- design conditions (for a 0.5% AEP rainfall event, but a greater rainfall event can be used if the developer chooses to do so). Safe operation means without catastrophic, rapid or structural failure. This is to ensure that the proposed stormwater management infrastructure has a fail-safe mechanism. This does not mean the stormwater infrastructure is to be designed to retain the volume of stormwater for a 0.5% AEP rainfall event;
- d. provide location and design details of stormwater management systems, including detention infrastructure required to meet clause 4 ~~ee~~ above;
 - e. demonstrate how the integrity of the stormwater mitigation and management measures will not be compromised during and after subdivision (for example ensuring that open drains that form part of the system will not be blocked or altered);
 - ~~f. include a risk based assessment to determine to what extent measures (if any) are needed to manage flows downstream of the land. The stormwater management plan must demonstrate that the proposed stormwater mitigation and management measures will not create or exacerbate adverse effects that are more than minor off-site. This includes consideration of cumulative effects;~~
 - g. demonstrate that erosion and sedimentation will be managed effectively within the mapped area during earthworks and as the mapped area is developed, by taking measures and installing devices, where necessary, to
 - i. divert clean runoff away from disturbed ground;
 - ii. control and contain stormwater run-off;
 - iii. avoid sediment laden run-off from the mapped area; and
 - iv. protect existing drainage infrastructure sumps and drains from sediment run-off; and
 - h. include the design and location of stormwater quality treatment that demonstrates the expected quality of stormwater leaving the specified system and its treatment of at least the 'first flush' volume (90th percentile daily rainfall depth) or flow rate (90th percentile rainfall intensity) in accordance with best practice techniques for at least 75% Total Suspended Solids (TSS) removal on a long-term average basis.
 - i. If a stormwater management system cannot practicably be designed to meet one or more of clauses ~~4 to h-c~~ **to h-c to h** above in relation to additional stormwater discharge, the subdivision or land use consent application must be accompanied by an assessment of the broader catchment to determine whether design solutions external to the mapped area are available to manage the additional stormwater discharges as a result of the development on the mapped area.
6. The integrated stormwater management plan, and the design of ~~the integrated~~ stormwater management systems, must
- ~~be~~ be prepared by a chartered professional engineer or other suitably qualified person who has (or can call on) experience in hydrology, hydraulics, stormwater design, flood risk management and construction management; ~~and~~
 - ~~it~~ be submitted along with the written approval of all landowners within the mapped area, unless they are the applicant/s.
7. Stormwater management information required outside a **new development mapped area** must demonstrate how Policy 9.2.1.Z will be achieved by:
- a. providing a stormwater management proposal prepared by a suitably qualified person, which:
 - i. contains a level of detail commensurate with the scale of the subdivision, land use or development activity;
 - ii. reflects the scale of any stormwater management issues in the catchment and any capacity constraints in the public infrastructure network; and
 - iii. where available, follows any relevant guidance on acceptable stormwater management solutions for similar activities in a similar context; and
 - b. for subdivision activities that result in more than six lots, or subject sites greater than 1 hectare, providing a full stormwater management plan where requested by Council.