

Item 1: Land Development and Subdivision Code of Practice Update – Stage 3

SESSION TYPE: Briefing

PURPOSE/DESIRED OUTCOME:

The purpose of this briefing is to provide the Infrastructure Committee with an update on the progress of the proposed updates to the Code following the closure of the public submission process.

DATE/START TIME:

Thursday, 28 November 2024 at 11.00am or at the conclusion of the 10.00am meeting

TIME BREAKDOWN:

Presentation: 15 min

Questions or Debate/Discussion: 15 min

Prepared by:




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**Title: Infrastructure Development Engineering
Manager**

18 November 2024

Reviewed and Authorised by:



Name: Tony Avery

**Title: General Manager Property &
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18 November 2024

ATTACHMENTS:

A	CoP Updates – Update to Infrastructure Committee
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QLDC Code of Practice Updates – Stage 3

Progress Update

Objectives of the Workshop

- Provide a progress update
- Summary of the consultation process
- Provide some examples of the submissions
- Provide new timeline for acceptance/adoption

Background

- **Stage 1** – minor amendments. *Complete*
 - **Stage 2** – amendments without cost implication. *Complete*
 - **Stage 3** – Significant amendments carried over from Stages 1 and 2, and amendments that require external expert advice. *In process*
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- Consultation on the proposed changes ran for 8 weeks from 12th of August to the 6th of October.
 - Approximately 240 submissions were made from a total of 28 individual and company submissions.
 - To allow adequate consideration of the submissions more time is needed.
 - Originally planned to seek endorsement from Infrastructure Committee **28th November (today)** and take to Full Council Meeting for adoption **6th December 2024**.
 - Revised timeline; seek endorsement from Infrastructure Committee **13th of March** and take to Full Council Meeting for adoption **17th of April 2025**.

Suitably Qualified and Experienced Practitioner (SQEP)

Issue

- 2020 COP limits complex pavement and stormwater engineering designs to Chartered Professional Engineer with these practice areas
- Feedback to include Survey and Spatial NZ Land Development Engineering practice area certificate to this criteria
- 2024 Draft Consultation COP includes the Survey and Spatial NZ qualification to this

Feedback

- Internal and external feedback that the Survey and Spatial qualification may not be sufficient for these complex works and adds level of risk
- Engineering NZ have expressed concern about this too
- Previously feedback that limited CPEng in the area and QLDC would be limiting surveyors in area with expertise and lots of local experience

Process

- Look further into Survey and Spatial certificate competencies and assess suitability
- Correspondence with Survey and Spatial and Engineering NZ
- Further background into any other TA's process in accepting this
- Confirm approach and alter wording

b. Road Pavement Design for pavements designed for a medium load or above (5×10^5 to 5×10^6 ESA / ONRC Primary Collector or above) - Suitably Qualified and Experienced Person is required to sign off design and that person shall be either a CPEng with a practice area in Pavement Design or hold a Survey and Spatial New Zealand Annual Practising Certificate in the discipline of Land Development Engineering;

Overland Flow Blockages

Issue

- Primary networks designed to 20yr ARI + CC. For the secondary systems 100yr ARI + CC is used as design criteria
- 2020 COP refers to complete blockages of culverts and other critical structures in primary system – what is critical determined by council
- Have tried to remove ambiguity and have clear guidelines for blockage, in line with Auckland COP. Clear for designers and reviewers

Feedback

- External feedback that blockage factors are too high and not realistic
- Queries on about if depth and velocity hazard requirements still apply for blockage scenarios
- Internal feedback that having some clarity/standards is useful

Process

- Looking to leave as is for default, can and look further for site specific
- Useful further guidelines from Australian Rainfall and Runoff Blockage of Hydraulic Structures with methodology for calculating blockage factors we can use if required

The secondary system shall apply the following assumptions for primary piped network based on pipe size (d – diameter):

- $d \leq \text{DN}600$, 100% blocked
- $\text{DN}600 < d \leq \text{DN}1050$, 50% capacity reduction
- $d > \text{DN}1050$, 10% capacity reduction

The secondary system design shall apply the following assumptions to culverts based on culvert size (d - diameter or smaller side if rectangle):

- $d < \text{DN}1500$, 100% blocked
- $d \geq \text{DN}1500$, 50% blocked, unless demonstrated by specific design to Council approval that a lower blockage factor can be applied

QLDC Rainfall Design Storm

Issue

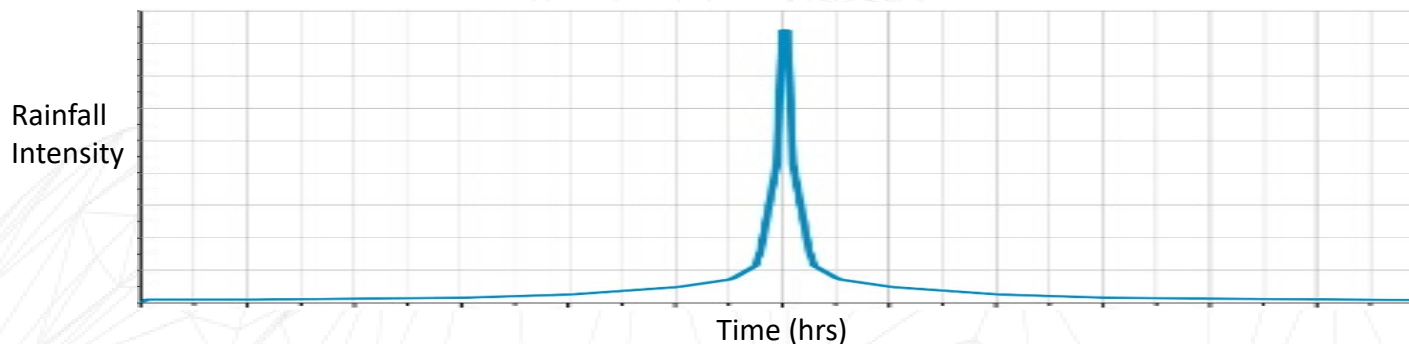
- QLDC refer to requiring a 24-hr nested design storm for modelling but minimal detail on this
- Often a design storm from Auckland is used (TP108) as a default however different climate and rainfall environment
- Can be a lack of consistency in modelling approaches

Feedback

- Rainfall profiles/design storms have been requested from various consultants
- Example calculations have been requested
- Feedback nested storms aren't necessarily required anymore as computing power increases

Process

- Some work has been done already with BECA for internal design storms for catchment modelling
- Looking at continuing with this, creating a QLDC storm profile and methodology consistent with finalised 2024 COP with example calculations
- Potentially timing and QA may not make this practical to release with this COP, and may be better as advice note



Other Submission Examples

- Soakage testing criteria and rates
 - Climate change factors
 - Manhole sizing with 3 inlets
 - Freeboard requirements
 - Ground improvement methodology
 - Building Code vs Engineering Approval
 - Roading deflection limits
 - Rubbish truck size
- And more..*

Next Steps and Conclusion

- Finalise dates
- Communication with submitters
- Updates to *“Let’s Talk”*
- Possible future advice notes
- Roding focus on next set of COP changes

Questions?