

Narratives for Urban Development scenarios

Aim: To create scenarios which are clearly distinct from each other to be able to see difference in outcomes across biophysical, social, cultural and economic values.

SCENARIO 1: BAU 1

The first business as usual scenario (BAU 1) sees development occurring to the extent and density anticipated in the WCC and PCC district plans' rules and the rules of the regional. Practice around the mitigation of the effects of new development is assumed to be as it is today (i.e. little stormwater quality management) and will not change over the course of the model.

SCENARIO 2: BAU 2

The second business as usual scenario (BAU 2) sees development occurring as described in BAU 1, but also assumes that identified and/or likely development areas not currently within a district plans, but described in other documents such as structure plans and/or growth strategy (e.g. the PCC Northern Growth Area Structure Plan), will go ahead. We will need to make some assumptions about when these occur. Practice around the mitigation of effects will be the same as under BAU 1 (i.e. low level mitigation of stormwater impacts).

SCENARIO 3: BEST PRACTICE NEW DEVELOPMENT

Scenario 3 sees all definite and likely development areas developed (i.e. those areas in BAU 2) but with stormwater management practice that is enhanced to reach a 'best practice' standard (BMP). This is likely to reflect national best practice, with some degree of analysis to identify mitigation practices likely to be feasible and valuable in the whitua. This BMP approach tends to be focussed on the use of stormwater management devices and follows the approach of current land development practice, aiming for large flat sections, large houses and large roads.

SCENARIO 4: BETTER THAN BEST PRACTICE NEW DEVELOPMENT

Scenario 4 moves a step on from Scenario 3 by reframing the method of development (particularly of greenfield development) to take a 'better than best practice' approach. In this case, this will mean the full application of water sensitive urban design (WSUD) principals in subdivision design and construction, including seeking lower imperviousness than BAU and BMP practice, smaller building and road footprints, greater enhancement of water ways through riparian and green space management, and green stormwater infrastructure choices.

SCENARIO 5: SHRINKING THE URBAN DEVELOPMENT FOOTPRINT

In order to further explore the impacts of urban development, Scenario 5 provides a development pathway in the whitua that covers either a smaller footprint, or a lower density, than under either of the development trajectories of the two business as usual scenarios (Scenarios 1 and 2). We would need to make assumptions about where to lessen/de-intensify the urban development footprint. Decisions would also be needed around the level of stormwater mitigation to be applied – it may be useful, for instance to compare the low-level, BAU stormwater mitigation over a smaller catchment with that of the Scenarios 1 and 2.

SCENARIO 6: EXPANDING THE URBAN DEVELOPMENT FOOTPRINT

Finally, Scenario 6 would see the urban development footprint expanded, either by increasing the extent of urban footprint or by increasing the intensity of development within the BAU 1 or 2 urban footprint. Again, assumptions would need to be made around the level of stormwater practice to apply.

MATRIX

The two key variables in these scenarios are the area of land to be development and the type of stormwater practice applied. How the scenarios above fall into a matrix of these variables is shown in the table below.

Development footprint	Type of stormwater practice		
	Low level mitigation (current practice)	Best existing practice (BMP)	Better than best (WSUD)
District Plans	Scenario 1 (BAU1)		
DP + likely IDed growth	Scenario 2 (BAU2)	Scenario 3	Scenario 4
Smaller urban footprint	Scenario 5a?	Scenario 5b?	
Larger urban footprint		Scenario 6?	

FROM THE PREVIOUS WORKING GROUP MEETING

Things to hold on to for policy/implementation framework:

- Strategy for prioritising interventions should be to target interventions towards sensitive and significant environments in the catchment for maximum benefit. Need status quo modelling results to determine which areas to target.
- Rather than specifying potential best practice options, for example - limiting impervious surfaces, the effect on the receiving environment should be the focus, allowing for a variety of solutions. There is more value in determining what outputs the Waitua Implementation Plan (WIP) is to achieve and allow relative flexibility in the methods to achieve these outputs. This will make the WIP more palatable to stakeholders and allow for new technologies/responses.
- Need to identify areas where the WIP could be more relaxed about limiting development because it may not have such significant impacts on water quality.
- Under NPS Freshwater Management (NPS-FM), need to maintain or improve to pre-NPS levels, but this may be offset both spatially and across contaminants. FMUs will help guide how new rules should be implemented spatially.
- Need to be very considered around costing and unintentional outcomes e.g. Queensland legislating mandatory rainwater tanks was challenged by builders association who disputed the lack of taking into account the opportunity cost of land required.