Designing Scenarios

Ruamāhanga Whaitua Committee

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Te Pane Matua Taiao

What is a scenario?

- A package of management options that can be modelled to determine how they impact on our values

Why do we use scenarios?

- Consequences of management options are often not clear
- Scenarios provide insights into future possibilities
- Help our understanding
- Assist our decision making

How do we use the results?

- Compare results with what we want to achieve
- Compare results with current state and between scenarios (using water wheel)
- Use what we learn to construct our mix of management options and our recommendations for the WIP

Your job in building scenarios

- Determine the range of possible freshwater futures
- Determine possible management options
- Confirm “business as usual” scenario
- Create packages of management options that you think will achieve the future you want (build the scenarios!)

Freshwater Futures

- Maintain (where we want to maintain)
- Improve (where we have to improve - national bottom lines)
- Improve (what are our aspirations)

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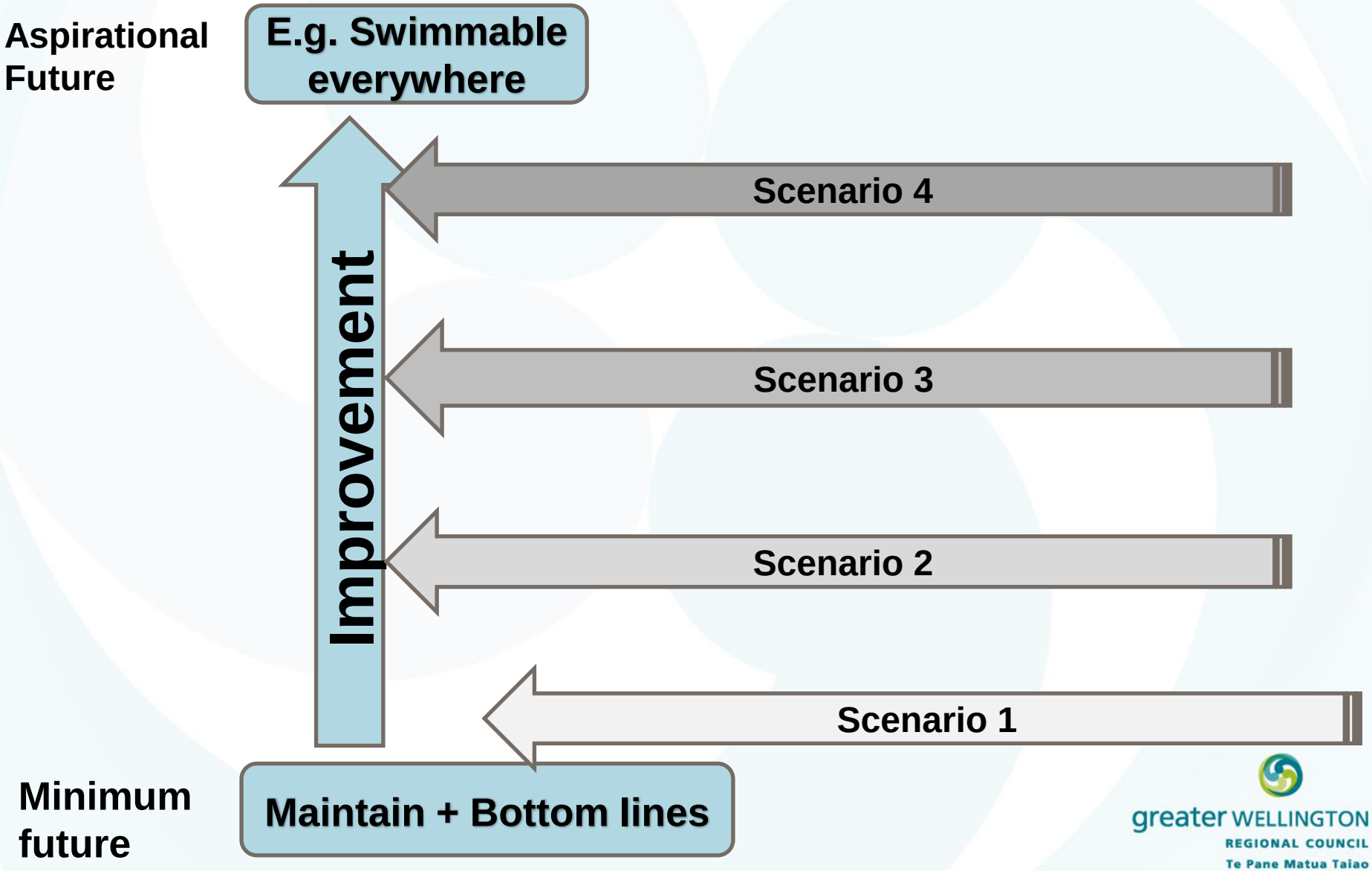
Freshwater Futures



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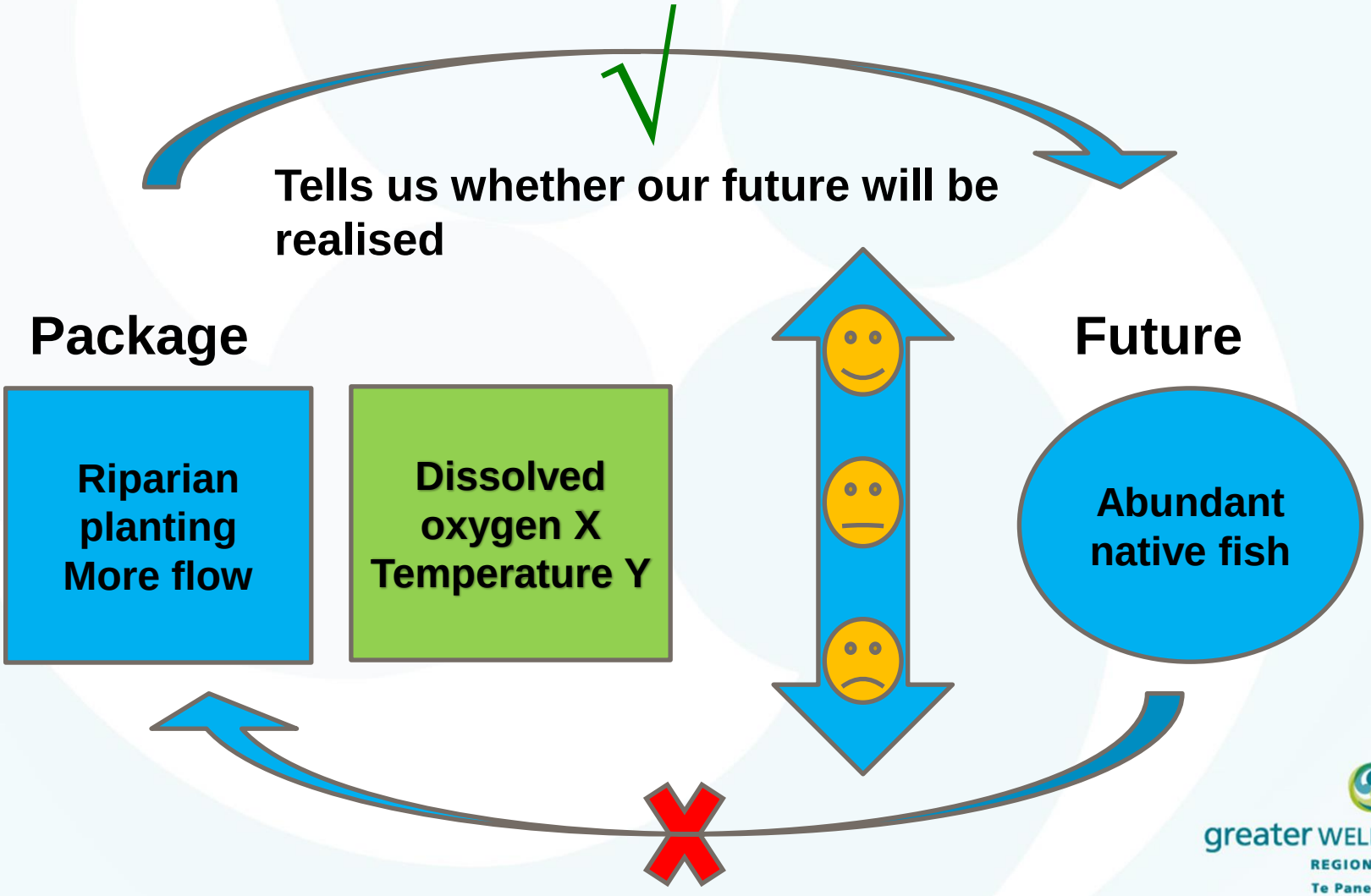
How modelling scenarios work?

- Modelling works in one direction only
- From management options → to result (impact on values)
- The model can't work backwards from an outcome and tell us what we need to do
- Can only model those things we know about, and can be modelled

How modelling scenarios work?



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“Business as usual” Scenario1

- Current policy
- Current practice
- Current projected investment (e.g. wastewater)

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Scenario 1

- Minimum flows/water allocations from PNRP
- Stock exclusion rules
- Existing and projected wastewater discharges
- Level 1 farm mitigations
- Hill country farm plans
- Cultivation/break feeding rules

Climate Change

- Scenarios will consider climate change

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Menu of Management Options

- Min flows/ water allocation
- Removing wastewater discharges from surface water
- Stock exclusion
- Riparian enhancement
- Effluent discharge practice/stock management (GMP)
- Planting hill country/retirement

Continued

- Water use efficiency
- Wetland restoration and enhancement
- Sediment retention
- Re-plumbing lake
- Storage/recharge
- Fish passage
- Discharge limits and allocations
- Storage dam
- Artificial recharge

Building Scenarios

- What scenarios will achieve the water futures you want?
- Next meeting and homework

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