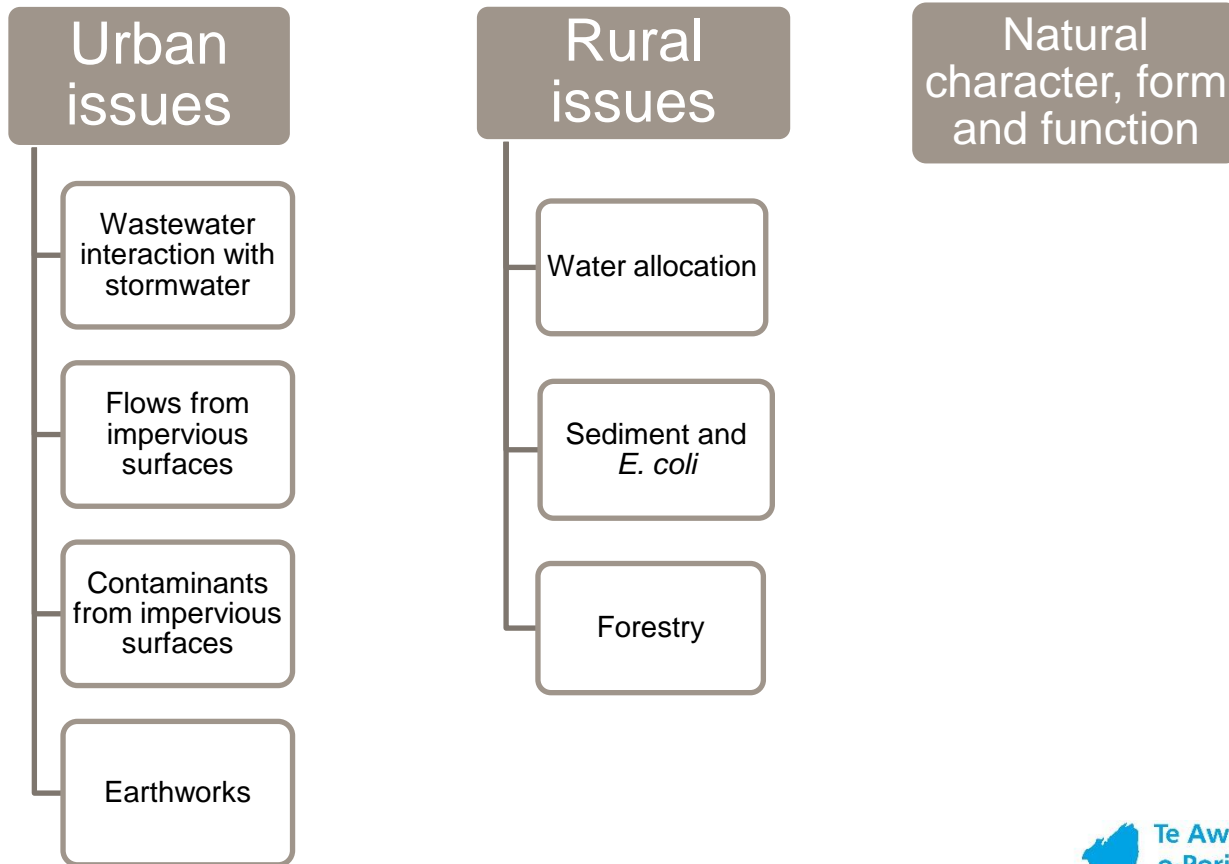


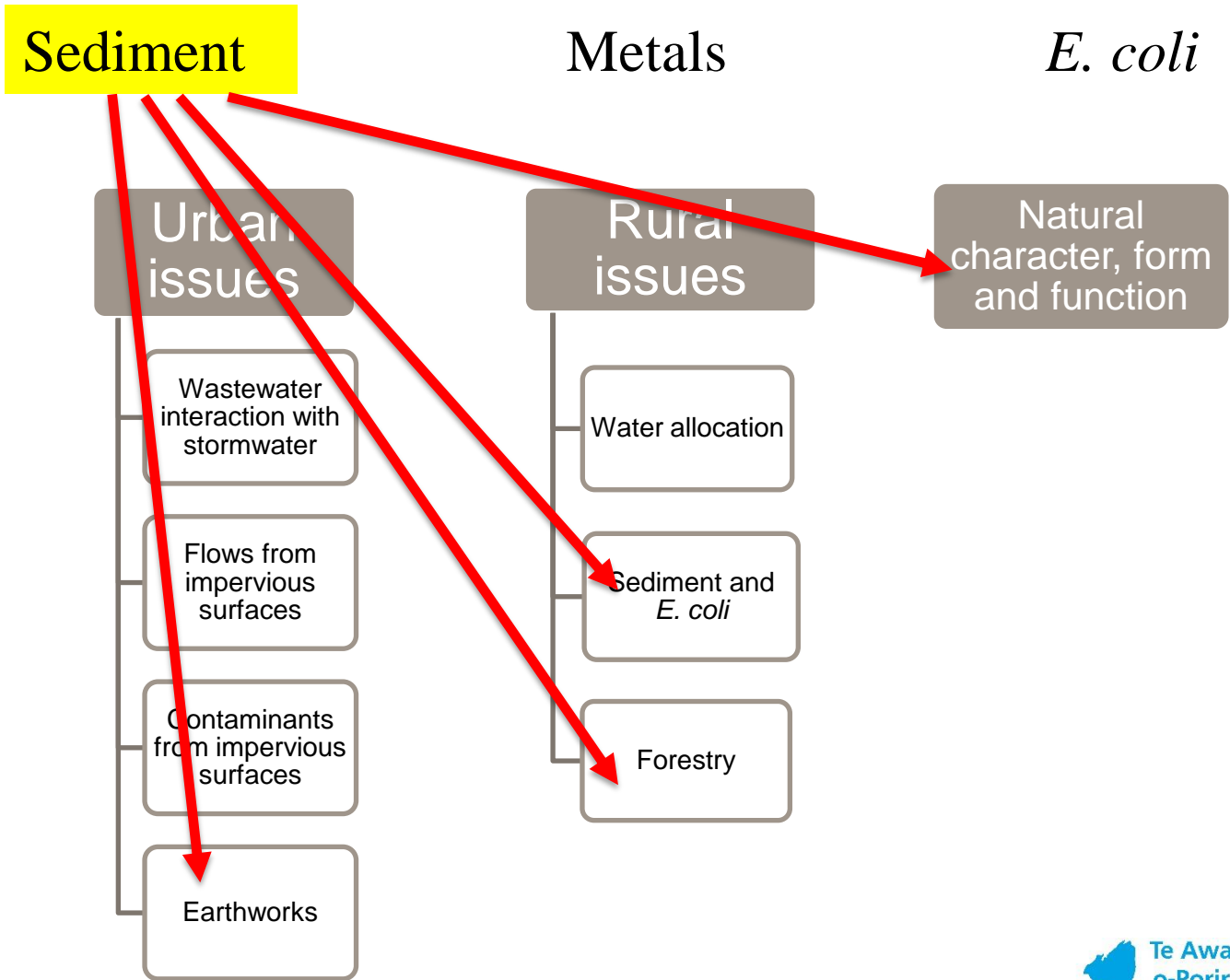
Draft WIP structure

For discussion 04.10.2018

Draft WIP structure



Draft WIP structure

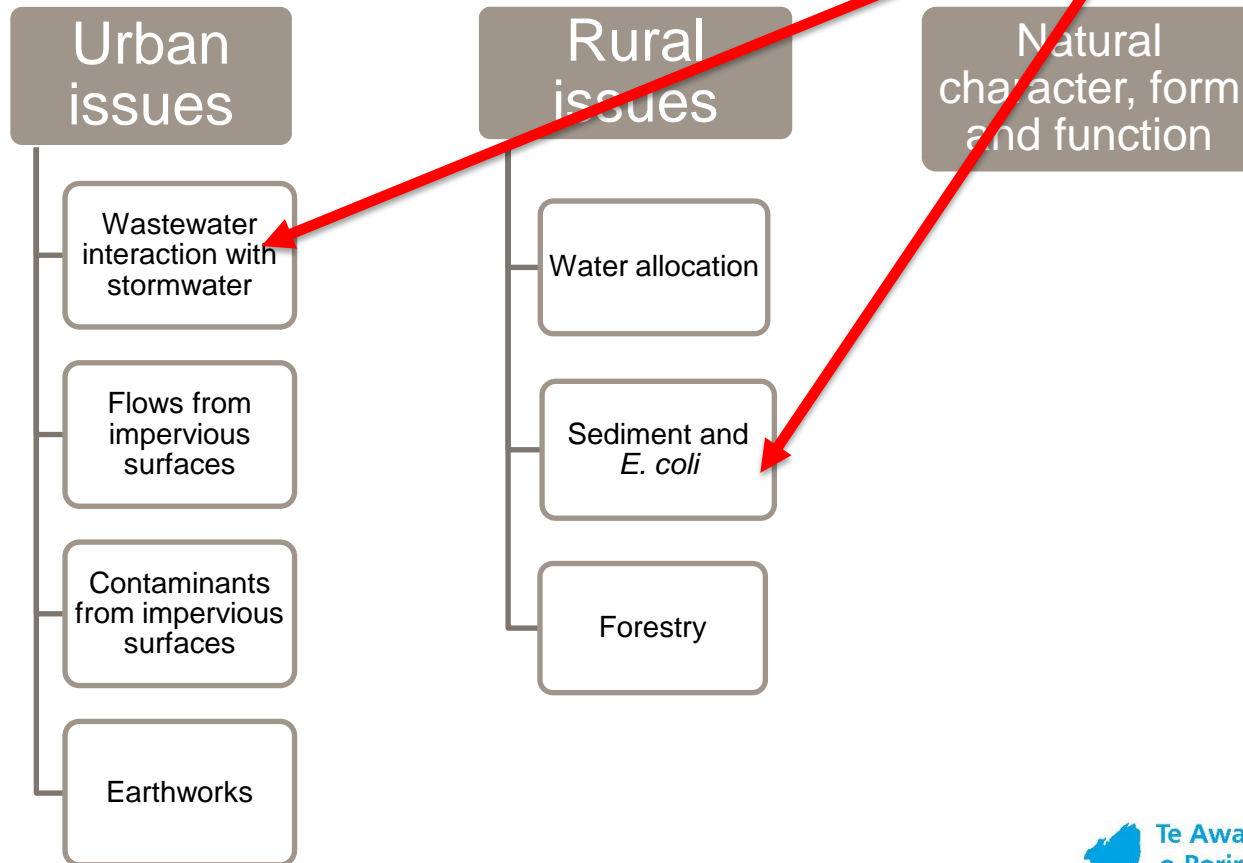


Draft WIP structure

Sediment

Metals

E. coli

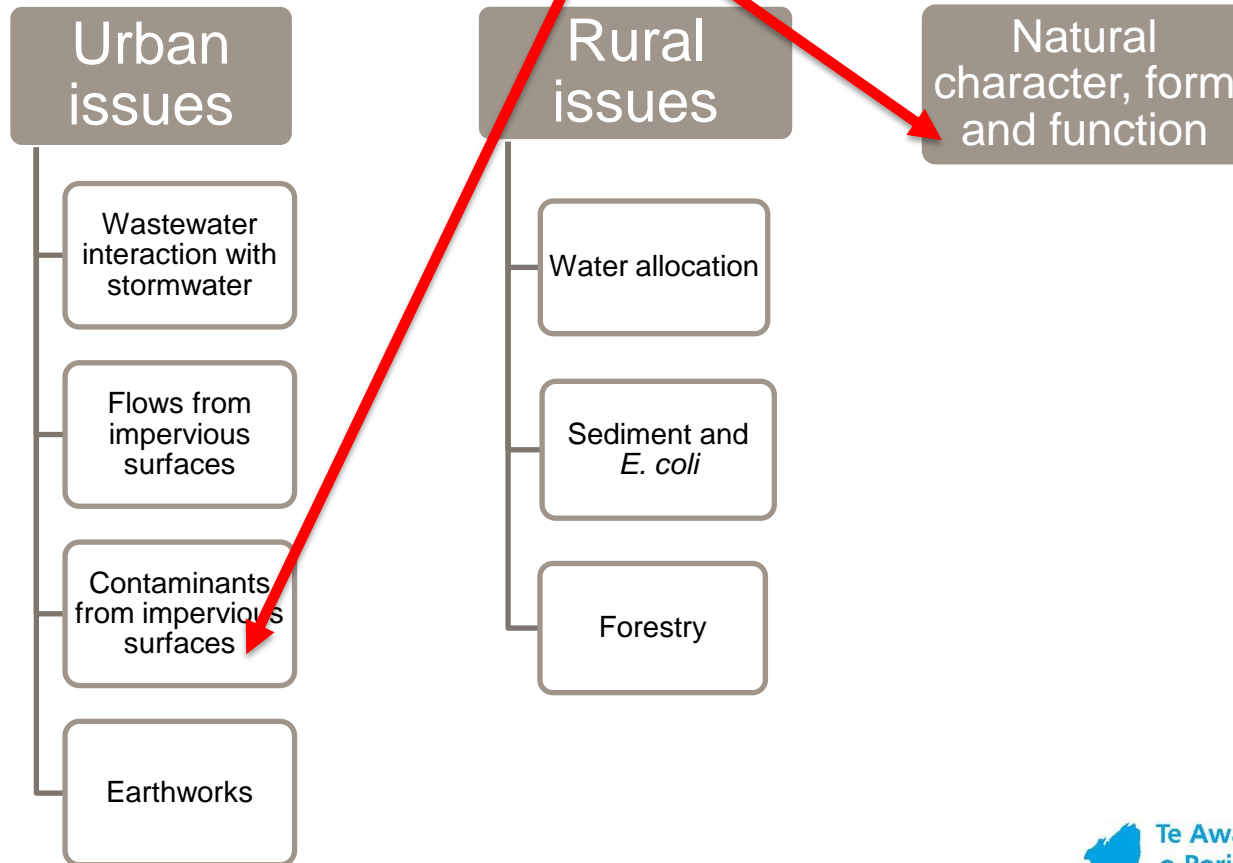


Draft WIP structure

Sediment

Metals

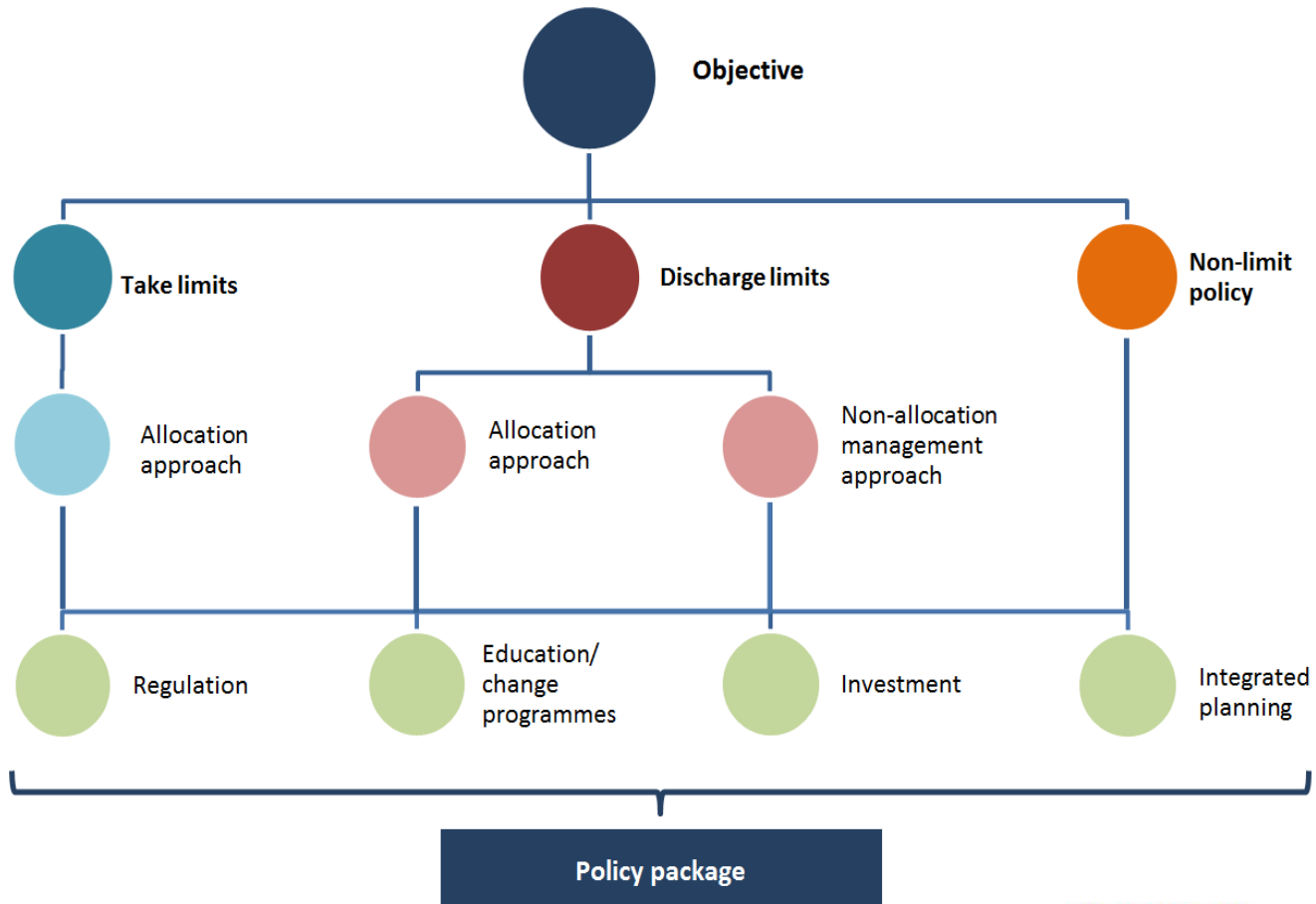
E. coli



Managing contaminants in Te Awarua-o-Porirua Whaitua

For discussion 04.10.2018

Policy packages



Weekend workshop – things not to forget

- Other toxicants - Ammonia, Nitrate
- Periphyton and macro algae – nutrient limits
- Peak flows
- Ecosystem health- MCI, native fish, habitat, fish passage, spawning areas
- Water allocation
- Objectives for enterococci and metals in harbour

Managing sediment

Sediment objectives

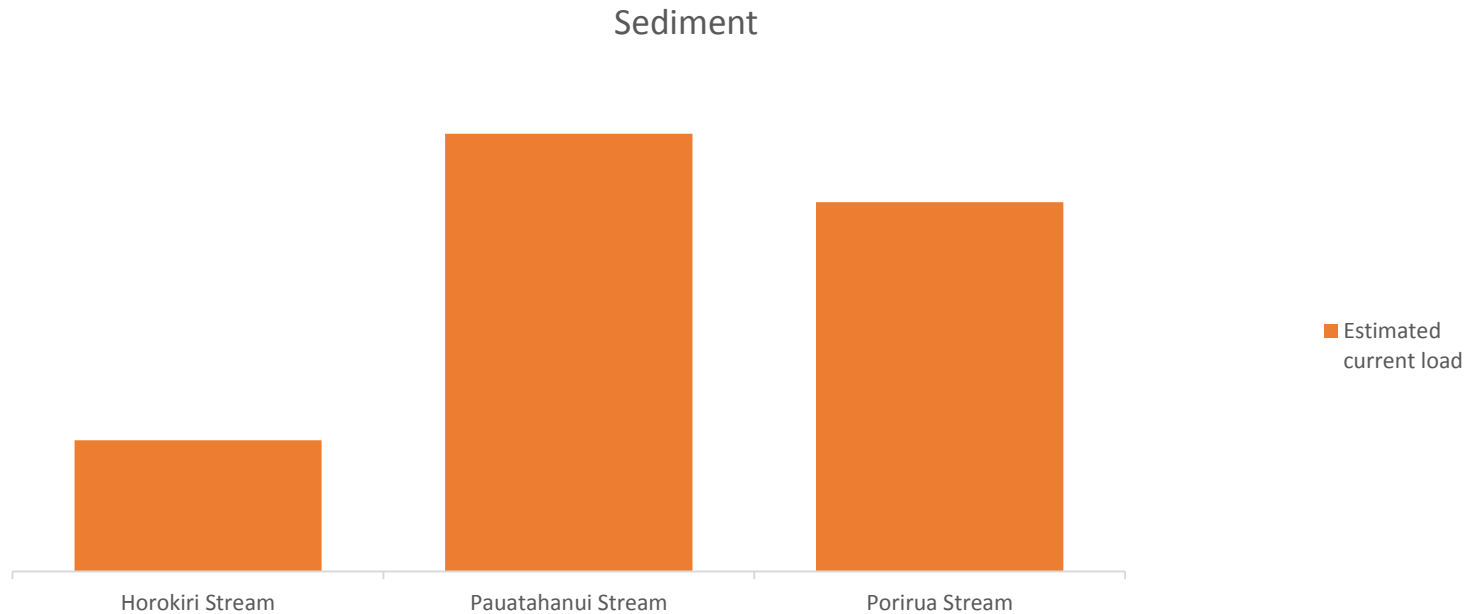
Sedimentation rate

- The ~~annual~~ average sedimentation rate is less than 2mm per year [~~and no more than double the natural sedimentation rate~~] in the Pauatahanui Arm (assessed as the rolling average over the most recent five years of data).
- The ~~annual~~ average sedimentation rate is less than [1mm ~~or 2mm~~] per year [~~and no more than double the natural sedimentation rate~~] in the Onepoto Arm (assessed as the rolling average over the most recent five years of data).

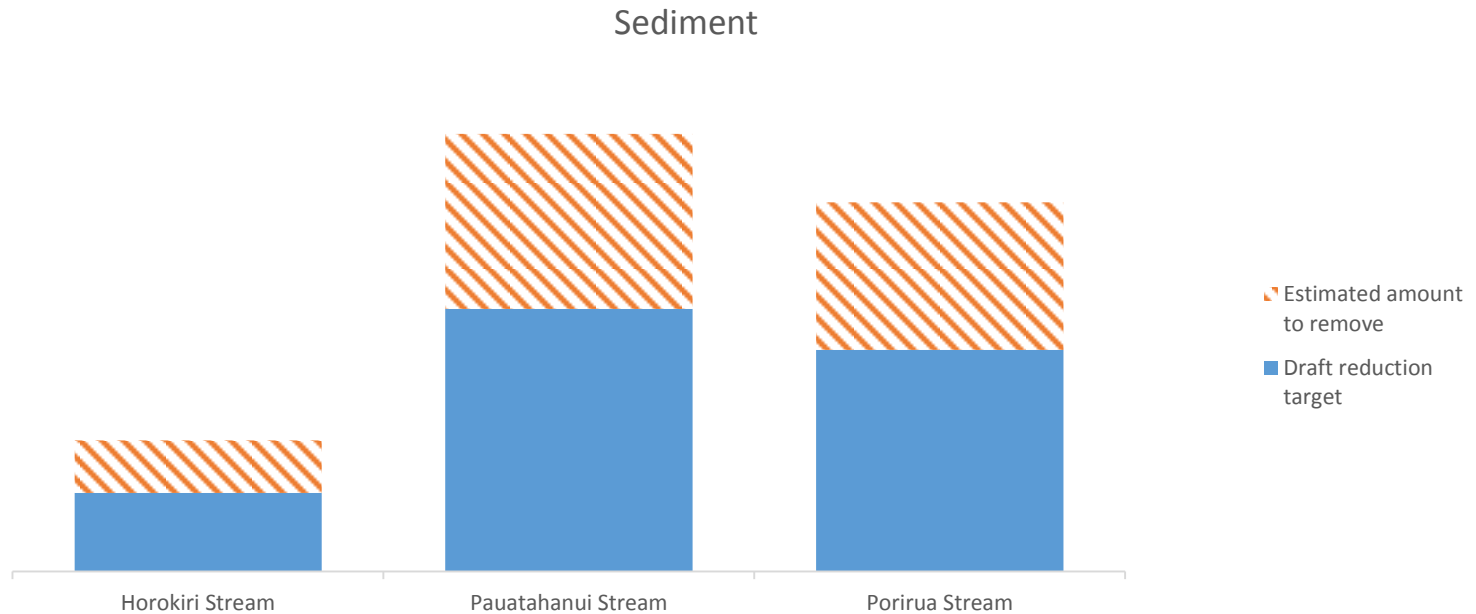
Muddiness objectives

- Sediment mud content does not exceed 20% in the intertidal sediments and should not increase from current state.
- Spatial extent of soft mud shall not exceed 15% of the available intertidal area and no increase in soft mud area from current state.

Quantum of change required for Sediment in the catchments



Quantum of change required for Sediment in the catchments



Sediment policies



Policy theme: Rural	
Policy tool	Commentary
Regulation: Stock exclusion	Amend new PNRP rules for exclusion to protect smaller streams, particularly in non-hill country Look for opportunities to implement when change in land use (e.g. to rural residential or lifestyle block)
Regulation: Take and use of water	Amend PNRP rules for permitted for 'general use' (e.g. not stock and domestic water) take to: <ul style="list-style-type: none"> - Check reasonableness of current PA take volumes - Review requirements to cease at minimum flows Currently relatively permissive PA rule compared to other regions
Investment: Retirement of steep slopes/afforestation	Look for opportunity to increase investment and advisory activity in rural land use space, including to:
Integrated planning: Farm, life-style block or property scale planning and implementation	<ul style="list-style-type: none"> - Increase retirement and planting rates - Produce better integrated farm planning services Option: Is the Committee interested in regulating land use activities that are at high risk of generating sediment?
Integrated planning: Sub-catchment community groups	Assist in set up and support of sub-catchment scale group processes to meet sub-catchment limits, particularly for sediment Can identify most efficient opportunities for sediment mitigations across sub-catchment and more



Options for reducing sediment on erosion prone land

- Retirement/planting of land
 - where (prioritisation of high yield areas vs everywhere)
 - how (regulation vs voluntary farm plans)

Options for reducing stream bank erosion

- Riparian planting
 - How?
 - Where?
- Stock access
 - How?
 - Where?
- Slowing water down – retirement
 - How?
 - Where?

Options for reducing sedimentation from earth disturbing activities

- Earthworks and Forestry - Are the current rules strong enough to get the types of reductions needed?

Managing *E. coli*

Key points

- Freshwater objectives set for *E. coli*
- Objectives for enterococci still to be confirmed
- Limits and targets are set as concentrations
- Non-allocation approach – but discharge standards for point sources

Key points

- Different policy approaches for urban and rural
- Rural – retirement, stock exclusion, septic tanks, sub-catchment groups
- Urban – managing overflows, network upgrades and cross connections, planning alignment

Any clarification questions?

Questions for Committee consideration

- Are you happy with the direction of the policy approaches and the rural/urban split?
- What is missing from the policy approach?

Managing urban contaminants



The water quality problem

- Zinc and copper a surrogate for (other) urban contaminants
- Managing zinc and copper largely deals with other contaminants
- Main sources from buildings, roofs and roads
- Acute (immediate) and chronic (gradual) toxic effects

The water quality problem

- Urban problem
- Urban streams and localised parts of Harbour esp. Onepoto Harbour entrance

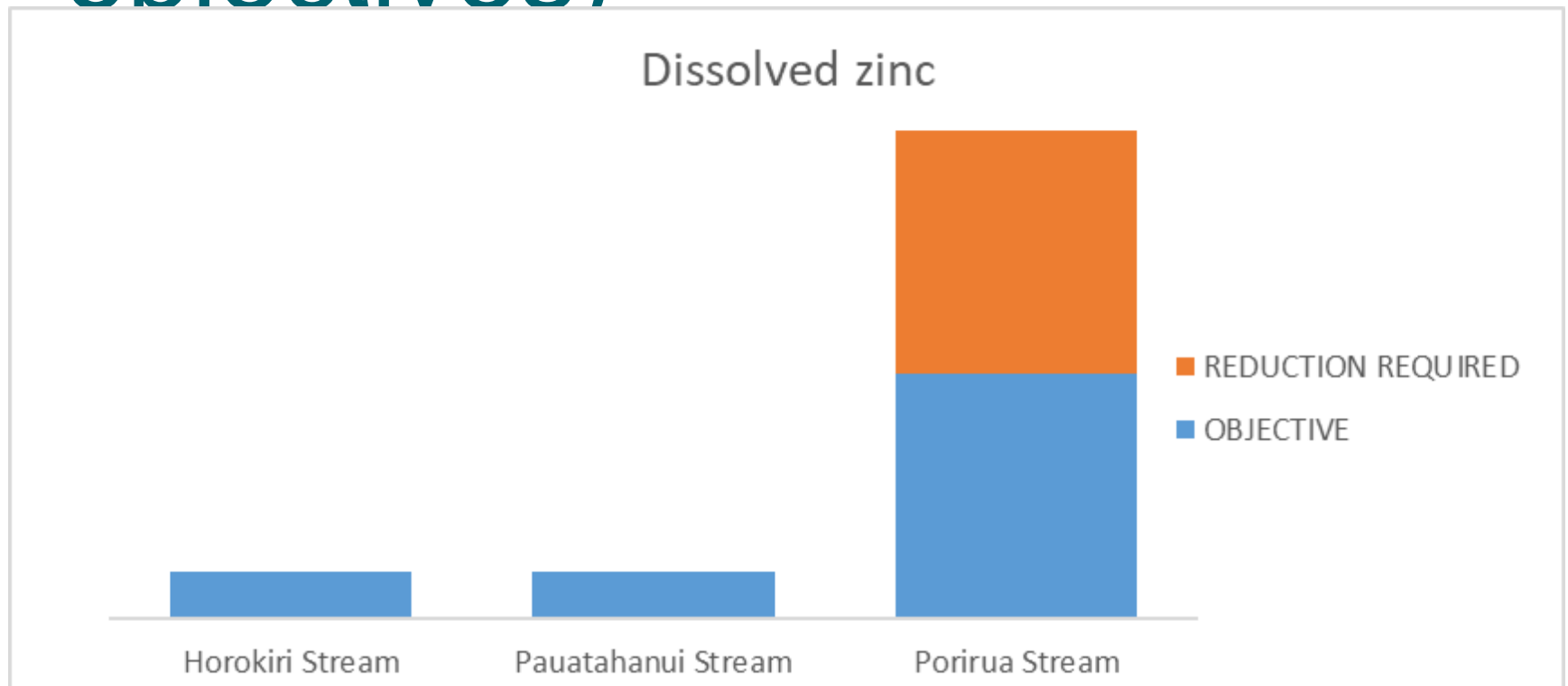
The management challenge

- No regulation for managing urban contaminants
- Building and infrastructure legacy
- Poor stormwater management practice and culture
- Greenfield developments on the horizon – increasing loads

Step 1: Already done

- Objectives for dissolved metals in freshwater environment (completed for letter band attribute states)
- Objectives for total sediment metal concentrations in harbour (tbc)

Step 2: Reduction in heavy metals required (from objectives)



Step 3: How?

Section 7 of paper

- WSUD including stormwater treatment in greenfield development
- Limit greenfield development locations
- Load reductions achievable from brownfield development – therefore incentivise infill and brownfield

Step 3 cont: How Other opportunities –

TACKLING ZINC AND COPPER DIRECTLY

Section 8 of paper

- Improve capability re WSUD
- Ban copper brake pads
- Replace roofs
- Change bylaws and Building Act
- Develop and require industry good practice
- Integrated planning

Questions for Committee consideration

- Are you happy with the direction of the policy approaches and the rural/urban split?
- What is missing from the policy approach?

Weekend workshop – things not to forget

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