

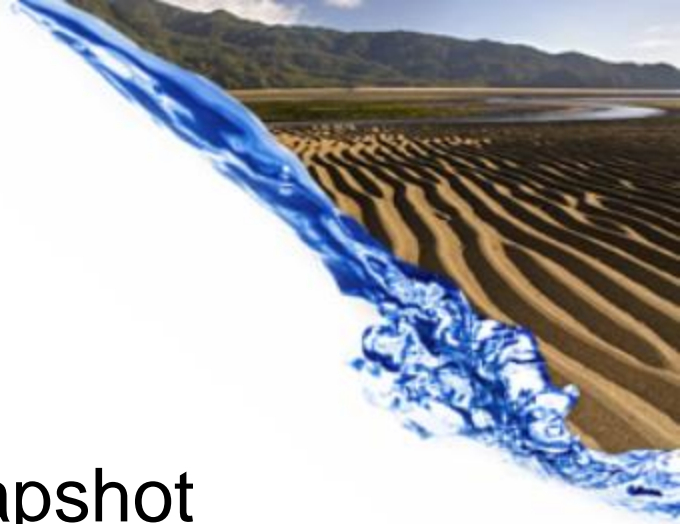


Waimea Freshwater and Land Advisory Group

Meeting 1 overview and introduction

Tasman District Council

- A brief history
- What we know
 - State of the Environment snapshot
- Challenges
- The job ahead



WHERE WE'VE COME FROM

- **1986 – Waimea Basin Water Management Plan (NCB)**
 - Water quality in surface water generally good
 - Concerns about nitrate in groundwater
 - Potential land use intensification and forestry operations effects noted
 - Protection of recharge zones identified as necessary
- **1991 – Waimea Catchment Water Management Plan (NMRC)**
 - Nitrate in confined aquifers
 - Water quality to provide for uses and values – classification for managing discharges
 - Diffuse sources of contaminants, land disturbance controls, opportunities for land use controls in recharge zones?

Progress

•2001 – TRMP (TDC)

- Limited Recharge protection - Waimea Plains Aquifer Protection Area
- Land disturbance controls

•2014 – TRMP

- Nutrient recording now required
- Efficient irrigation – detail specified
- More water quality management detail to come.....

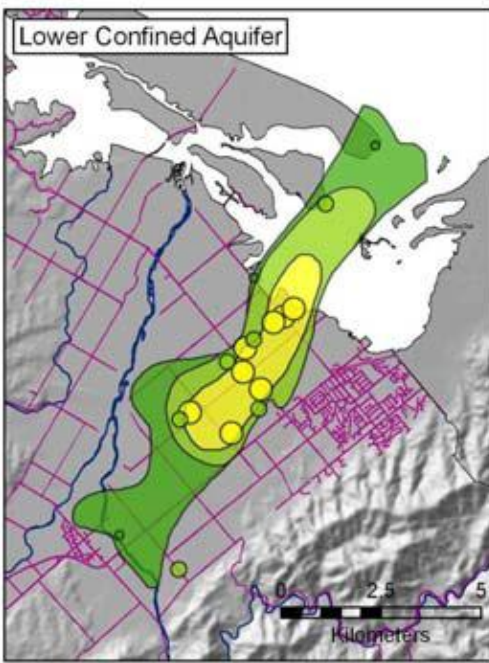
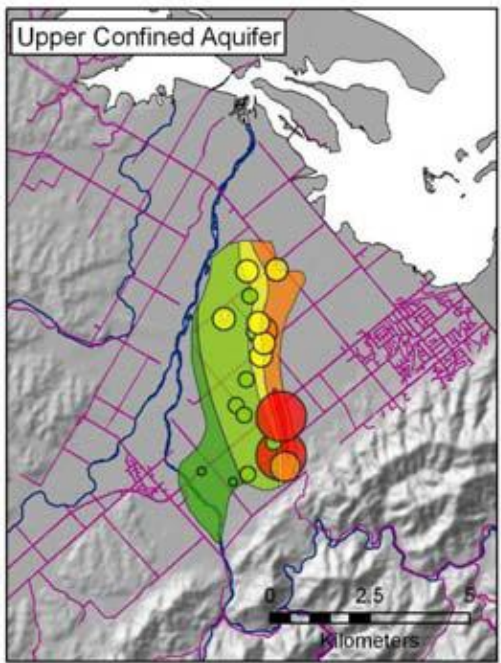
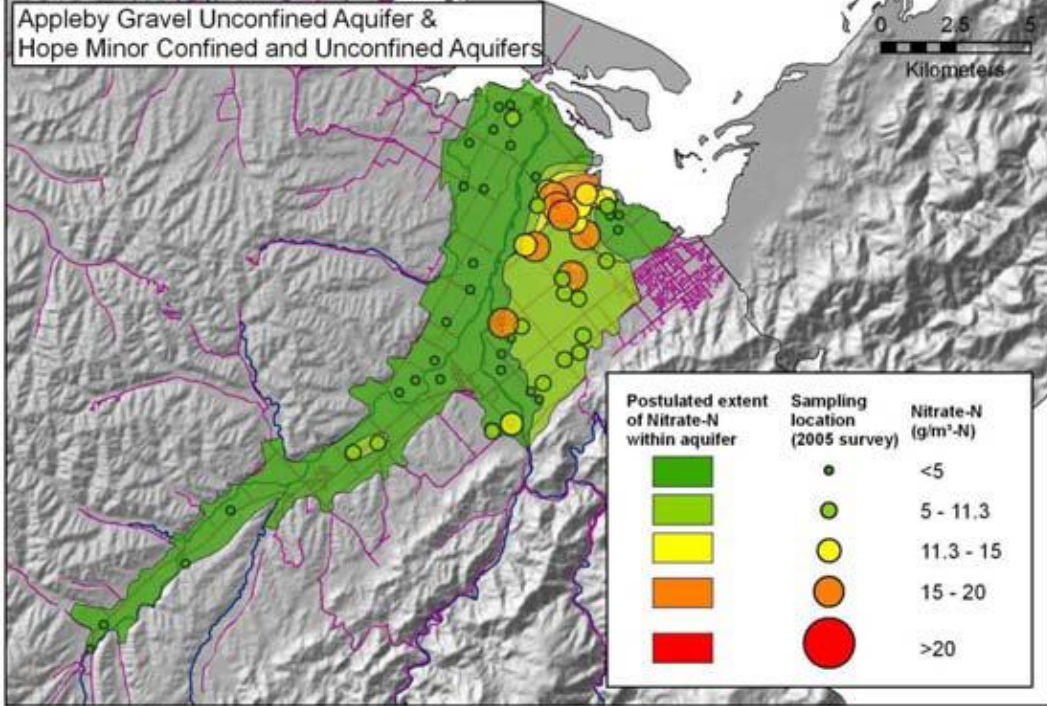
STATE OF THE ENVIRONMENT

•Surface water quality

- Waimea and upper catchments generally good but,
- Water quality and ecosystem issues in spring fed springs
 - High nitrate resulting in low species diversity
- Water quality and ecosystem issues in urban streams
- Sediment concerns
 - Increasing levels of fine sediment
- Blue-green algae issues (phormidium)
 - Increasing problem during summer low flows
 - Link with fine sediment

GROUNDWATER QUALITY

- Nitrates a key concern
 - Drinking water
 - Ecosystems
- At southern ends of the UCA, LCA where recharged from the Wairoa River, $\text{NO}^3 < 3 \text{ g/m}^3\text{-N}$.
- High nitrate concentrations on eastern edge of UCA ($\text{NO}^3 > 20 \text{ g/m}^3\text{-N}$).
- Neimann and Pearl Creek flow from UCA and AGUA - high nitrate concentrations



ECOSYSTEMS

- SEM monitoring site on lower Waimea River shows
 - relatively few kinds of invertebrates
 - low numbers of sensitive species
 - also few of the pollution tolerant taxa
 - resulting in high MCI and SQMCI scores.

- Parts of the upper-mid Waimea River, that are highly disturbed by recreational and gravel-carting vehicles, have very poor macroinvertebrate condition (Kelly *et al.* 2005).

MAINTAIN AND ENHANCE

- Uses and Values for which water quality to be maintained are listed:
 - Ecosystems, drinking water, stock water, recreation, amenity cultural and spiritual
- Existing provisions manage point source discharges
 - Rules for discharge activities
 - Some classifications with water quality standards
- SEM indicates non-point sources not well managed

NATIONAL POLICY STATEMENT

- Focus on community involvement
- Explicit recognition of values and uses to inform management objectives
- Need for measures to ensure management objectives will be met
 - “Over-allocation”
 - Limits
 - Methods, including rules.
- Amendments proposed
 - Compulsory values
 - ecosystem health - attribute states specified for nitrate toxicity, periphyton – chlorophyll (and NH_4^+ , O)
 - secondary contact recreation – e.coli, cyanobacteria, SFRG

PREDICTIONS

- Modelling to predict water quality impacts
- River water quality expected to improve with dam
- Groundwater and coastal springs water quality at risk
- Outputs based on modelled leaching rates for a range of land use systems and soil types
- Lack of nutrient use/leaching data for some land use systems, especially market gardening.
- Variable current practice (and potential effects) – including irrigation management and nutrient management performance

CHALLENGES

- There is never enough detail/information
- Available tools may not meet all needs (e.g. Overseer for all land use systems)
- Limited budget for new investigation or research
- Lots of community interest in the plan provisions and the water quality outcomes.

OUTPUT EXPECTED

- A draft plan change for Council approval that includes:
 - water quality necessary to meet management objectives [schedule 30B](#) and
 - Contaminant limits;
 - Nutrient (and other contaminant) limits; e.g catchment loads that will ensure water quality objectives met
 - Methods required to meet or maintain the water quality and limits specified including;
 - land use controls, property scale leaching rate limits, nutrient management requirements, etc.
 - The draft is to have demonstrated acceptance from the wider stakeholders and public with an interest in this issue.
 - The draft is to be consistent with TRMP policy and also with the NPSFM.

TIME FRAME and RESOURCES

- Draft plan change to be prepared for Council consideration by 2016
 - Milestones – to be agreed
 - Budget – none
 - Resources:
 - Staff; technical and admin
 - meeting venue
 - facilitation (if required)
 - website

WHERE DO WE MEASURE SALINITY?

Automated and weekly

