Proposed TANK Plan Change 9

Hort NZ virtual meeting 27 May 2020

HAWKES BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

TANK Plan Change 9

- Impact of PC9 on water users and landowners
- Stream depletion and protecting springs
- Water Quality
- New rules

- **Other**
  - Source Protection Zones
  - Urban water supply
  - OWBs

HAWKE'S BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Impacts on water users: New limits

Heretaunga Plains Groundwater

- **No new allocation**
- **Reduction to actual and reasonable**
- **Mitigation required**

Surface water

- **Reduction** for Ngaruroro and Tūtaekurī
- **Cumulative total** for Karamū and its tributaries



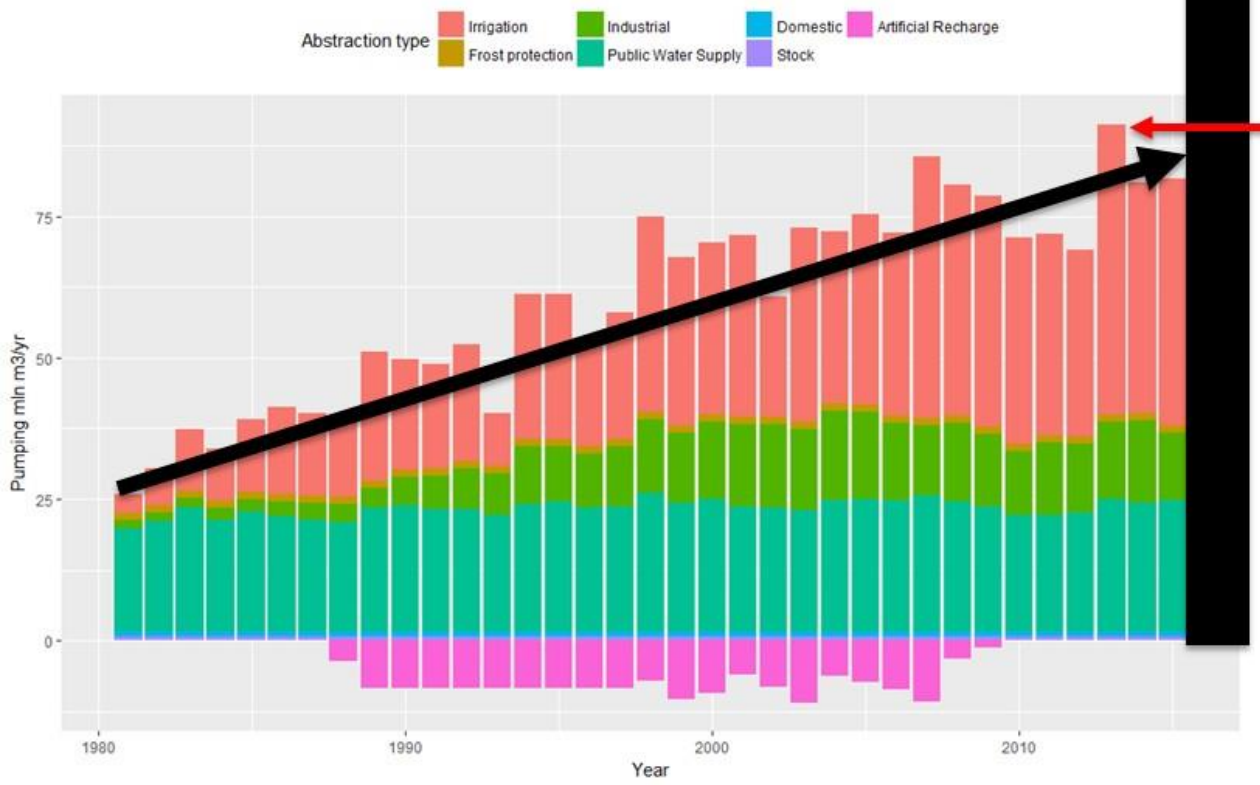


Limits reached

- Modelling shows that if we were to use all the water allocated from the Heretaunga Plains it would be unsustainable
  - Adverse effects on stream flows – including Ngaruroro River
- Options considered – but costs of alternatives are high and effects variable
  - Further reduction in allocation limit
  - Take restrictions at trigger flows

HAWKE'S BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Heretaunga Plains groundwater allocation



Allocation approximately **180 Mm³/yr**

2012-13 **Utilisation** approximately **90 Mm³/yr**

HAWKES BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Over-allocated management units

Ngaruroro and Karamu surface water

Heretaunga Plains

- Reduced amount re-allocated to existing permit holders
  - Least of actual and reasonable or maximum annual use (meter data)
  - Annnual allocation amount – some flexibility during irrgation season
- New applications prohibited
- New allocation standards
  - Minimum of 80% efficency required





Stream flow maintenance

- Water users required to maintain minimum flows in lowland streams – or be subject to a ban
- Investigate and develop water storage solution for Ngaruroro River
- Water users encouraged to develop innovative solutions
  - Collectives/committees, shared water agreements, Twyford solutions
  - Better riparian and wetland management





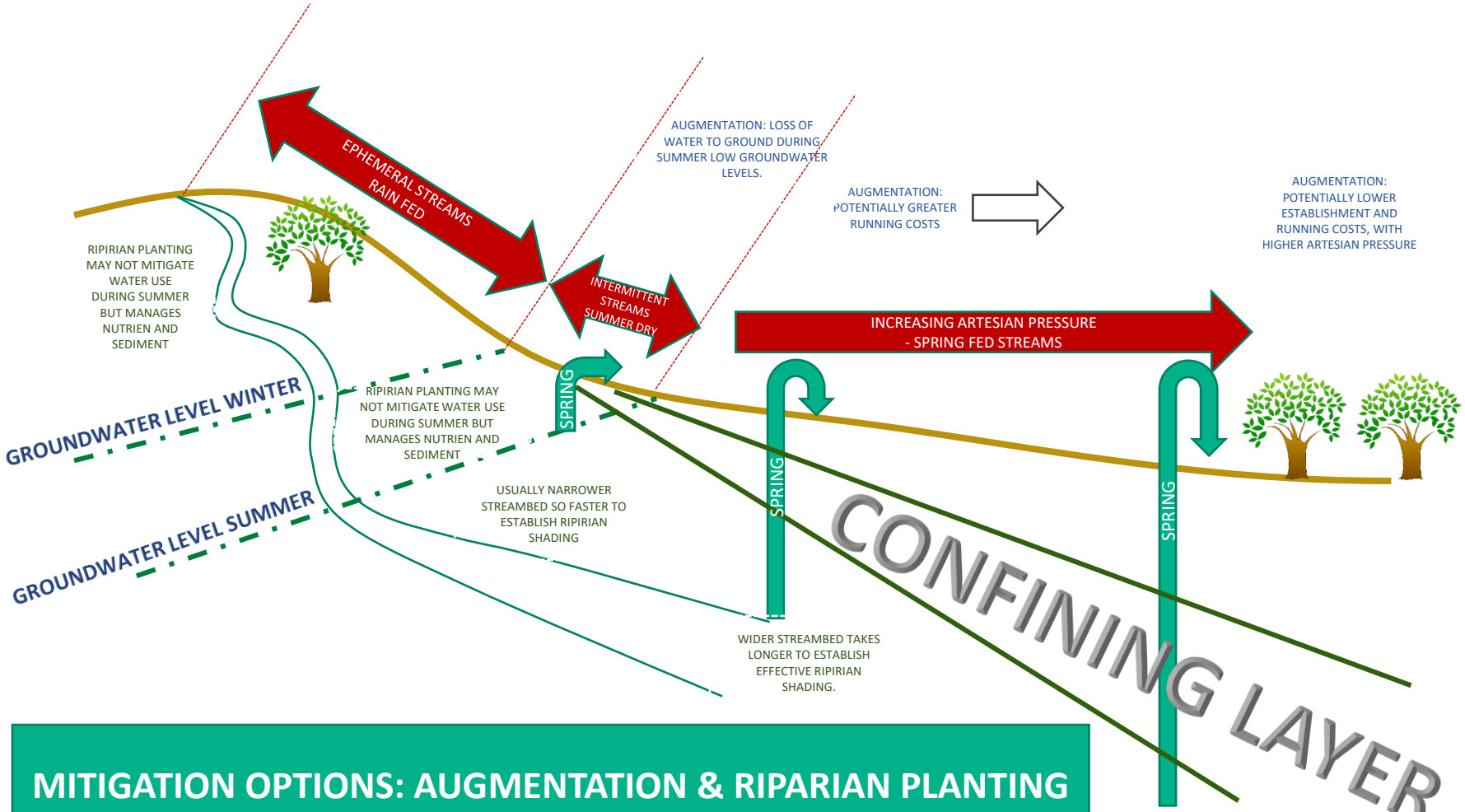
Protecting the lowland springs

1. Flow enhancement measure targeting improved ecosystem health;
    - More flow
    - Lower temperatures
    - More oxygen

2. Discretionary activity
    - Subject to conditions and monitoring

3. Commitment to working with mana whenua and permit holders through consent process to find best solutions

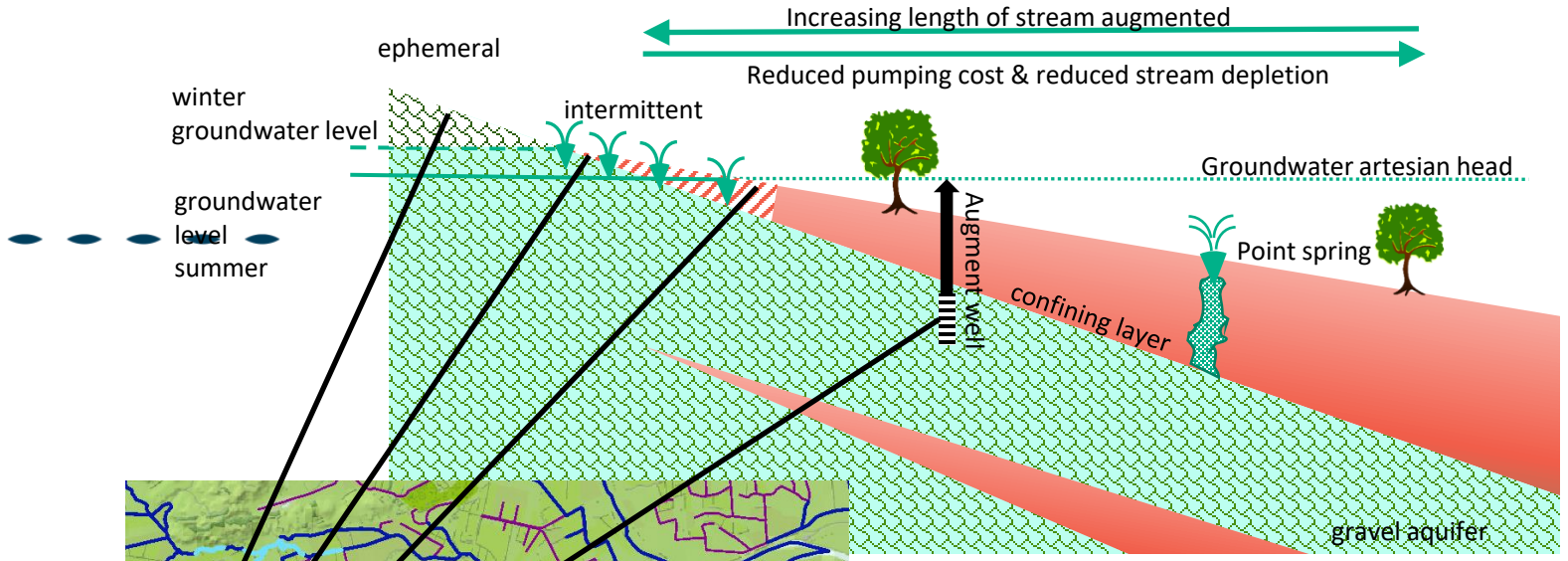
HAWKES BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

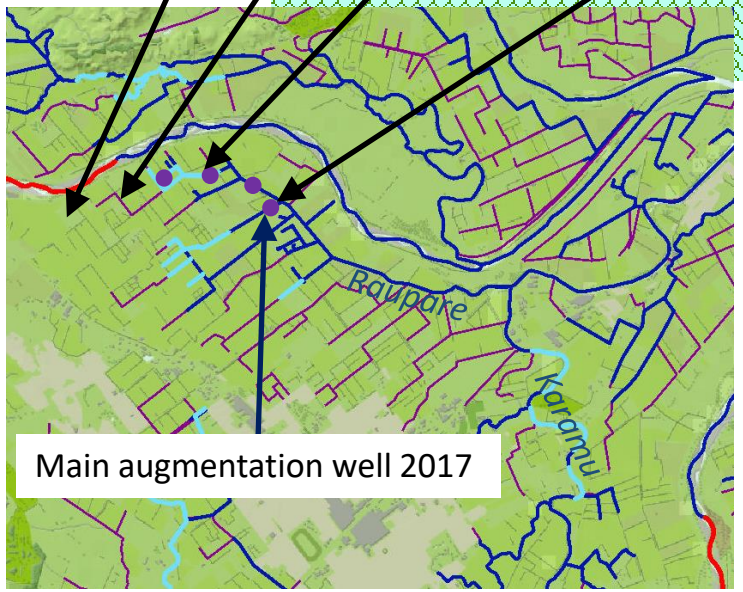


MITIGATION OPTIONS: AUGMENTATION & RIPARIAN PLANTING

HAWKES BAY REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI





- Raupare augmentation wells 2017

HAWKES BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Augmentation choices matrix

Stream type	Groundwater augmentation	Surface water augmentation if reservoir upstream	Riparian shading narrow streams	Wetland If space	Engineered reaeration e.g. narrowing, bubblers
stream over confined aquifer, high artesian pressure (e.g. Raupare mainstem)	✓	✓	✓	✓	$
stream over low artesian pressure (e.g. Irongate headwaters)	$	✓	✓	✓	$
stream over unconfined aquifer (e.g. lower Paritua)	✗	✓	✓	M.A.R.?	$

ES BAY
L COUNCIL
TE KAUNIHERA A-ROHE O TE MATAU-A-MĀUI

Alternatives to consider

- Council led approach
  - Identify solutions at catchment scale –
    - integrated and co-ordinated
  - Catchment scale funding solutions
  - Costs still to be met by permit holders





Water transfer

- Still possible but reduced scope
  - No transfer of allocated but unused water
  - Some provision for transferring within community supply
  - Can change land use, but area limited by existing actual and reasonable amount of water
    - Note link in rules to risk of increased contaminant loss.





Site to Site Transfer

1. NOT a trading regime
2. The RMA allows for site to site transfers of water permits
   - The Freshwater NPS requires plans to control transfers of water including to improve and maximise efficient allocation of water
3. Enables water users to share or move water to where demand is.
   - Subject to constraints
   - Could allow for new users to access water within limits





Water Quality

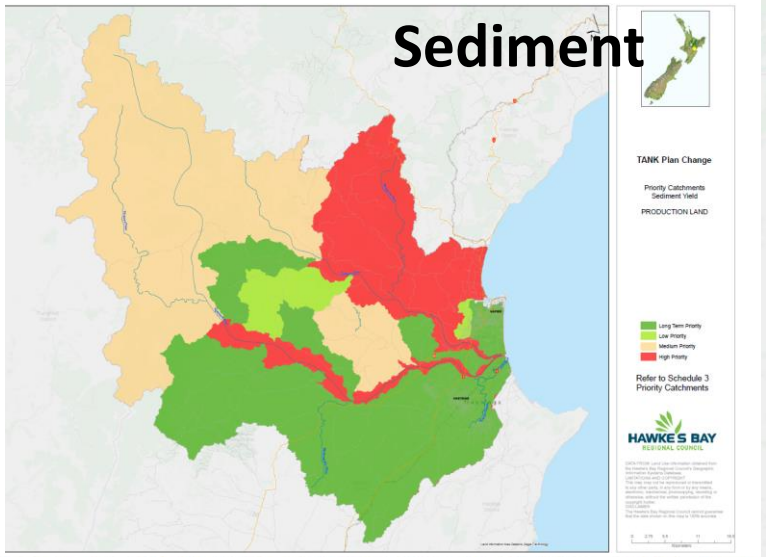
HAWKES BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

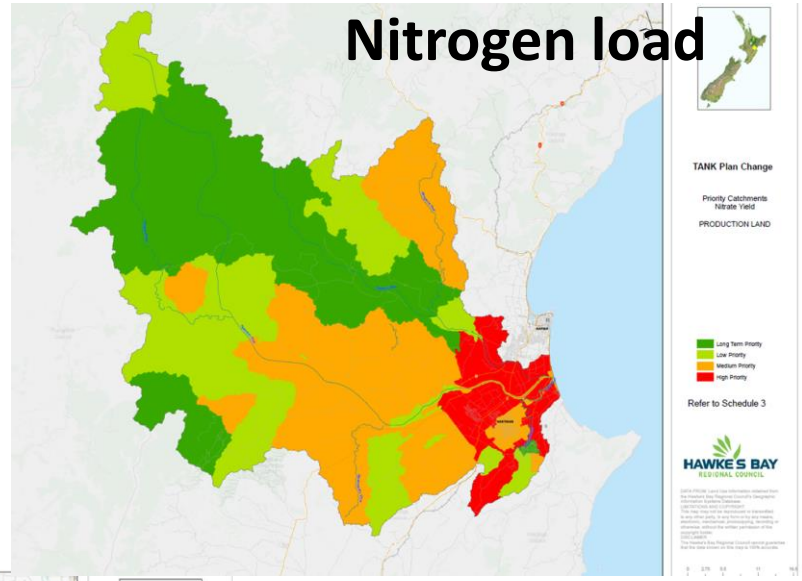
Priority

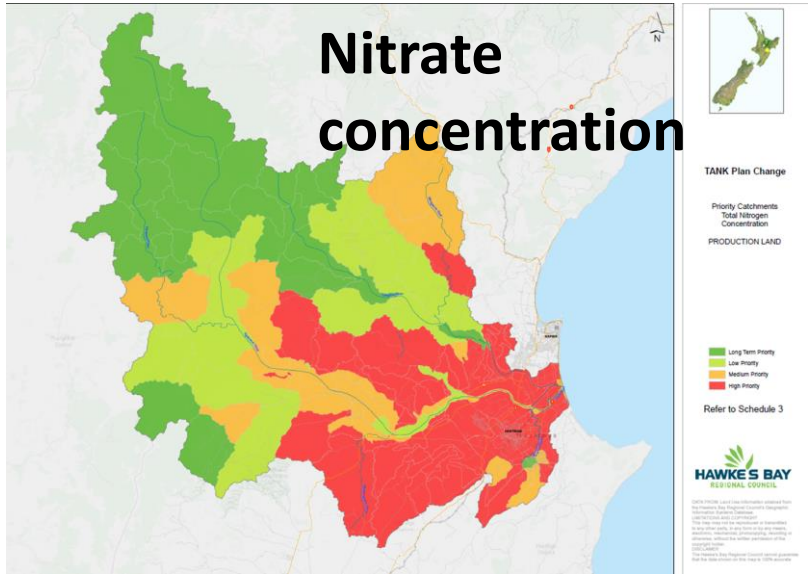
- Focus on where water quality not meeting objectives
  - Risk of sediment loss (high priority where loss >500 t/km$^{2/}$y)
  - High nitrate concentrations (high priority where >2mg/l)
  - High loads to estuary (high priority where loads >10kg/ha/y)
  - Low dissolved oxygen (high priority where streams anoxic)
- Focus in risk areas
  - Source Protection Zones
- Timeframes – rules and milestones

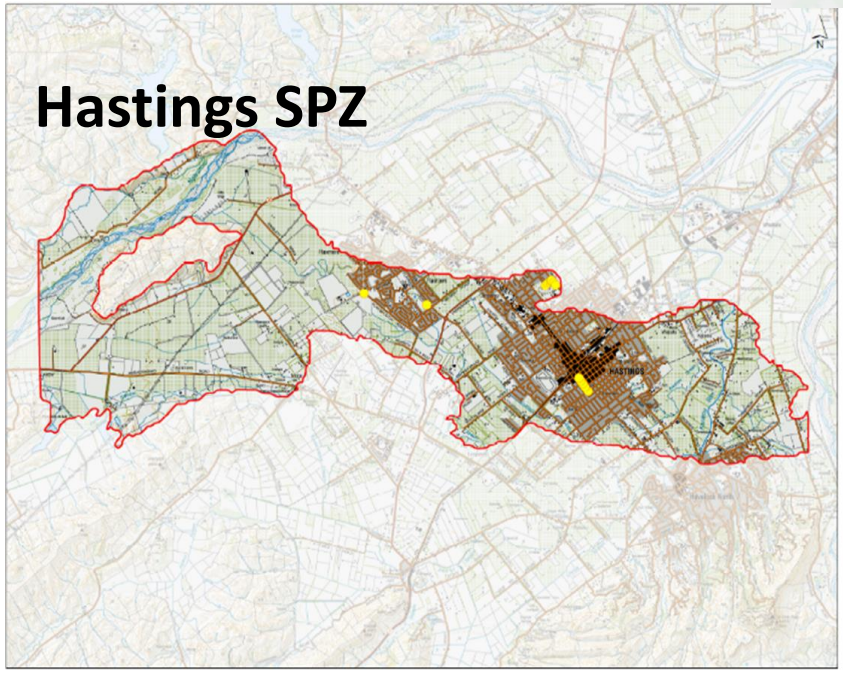
HAWKE'S BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

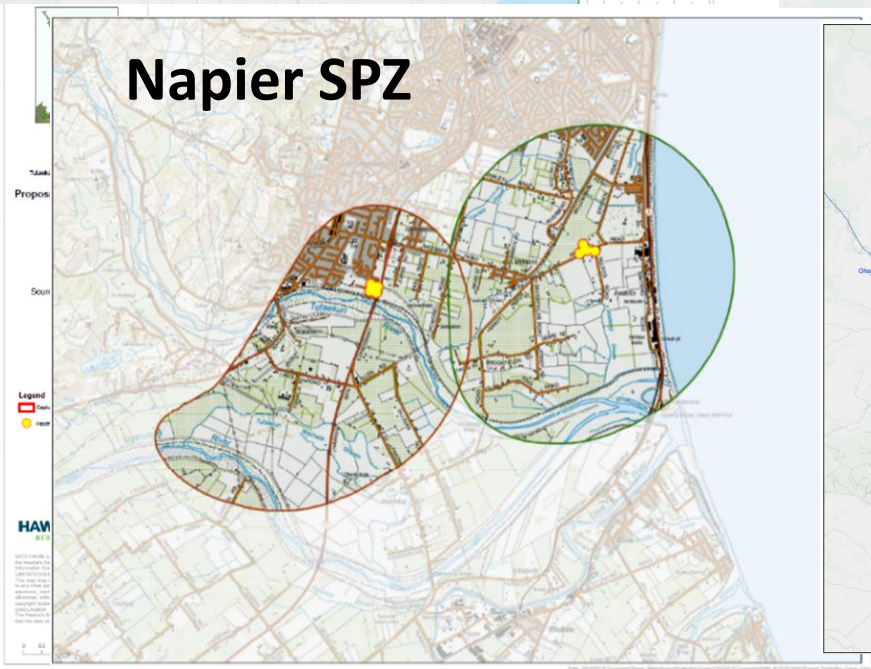
Priority Management Areas

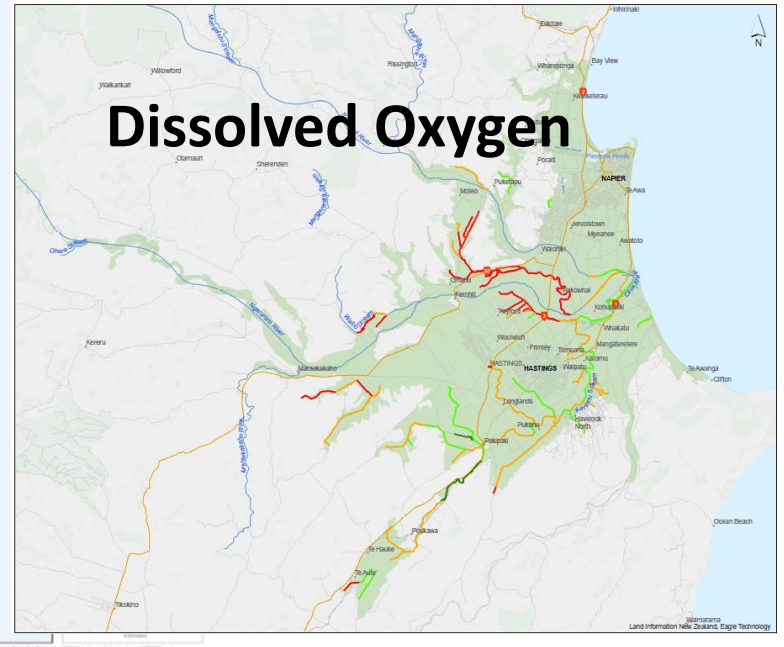












Impacts on land users: Farm Plans

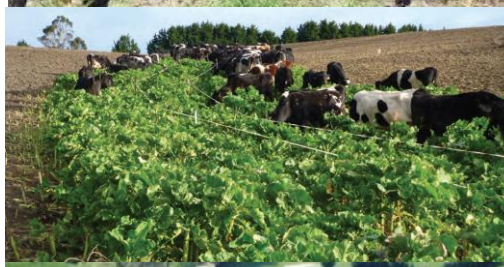
- All landowners are required to have farm plan or be a member of a collective or industry programme and;
  - **Identify key risks** in relation to catchment water quality and Schedule 1
  - **Identify measures or practices** to address loss of contaminants affecting water quality objectives
  - **Include timeframes for actions** consistent with plan objectives and specified milestones
  - **Provide information** to council at specified frequency
  - **Review** plan every 5 years

Impacts on land users: New Rules

Land use rules

- Stock excluded from waterways
- Cultivation limited near waterways and on sloping land
- No land use change without consent
- No indigenous vegetation clearance near waterways

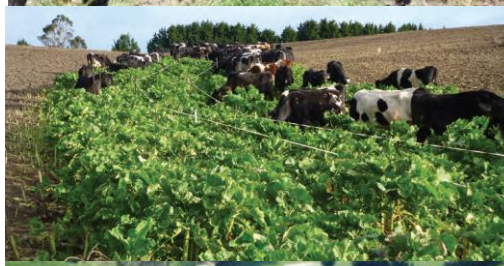




Impacts on land users

- Riparian vegetation to meet multiple objectives
  - Flooding and drainage
  - Biodiverstiy
  - Shading
  - Aquatic ecosystem health
  - Amenity and recreation
  - Erosion control





Council Flood Management Strategy

- New strategy for Karamu
  - Review underway
  - Levels of service
  - Riparian planting design
  - Channel design review
    - Planting guidelines
- Weed control strategies
  - Alternative methods
  - Impact on nutrient loads

HAWKES BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Land Drainage

More information about processes and pathways for nutrient loss needed

High levels of contaminants in drainage water

Mitigation measures need to be developed

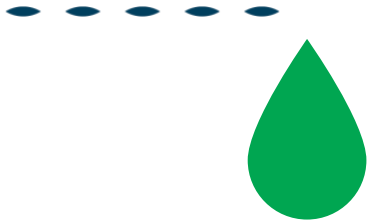
Time required to develop solutions – delayed implementation of rules

Industry research programme underway

HAWKES BAY REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Land Use Change



Existing water quality issues

Permitted level of change based on 10 ha threshold

No increase from land use change that exceeds this amount

Based on modelled loss numbers using Overseer and Spasmo

Could use other site specific loss calculations where information is available

If part of a collective, then land use change is a controlled activity

Otherwise restricted discretionary activity

HAWKES BAY REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Issue 9; Source Water Protection

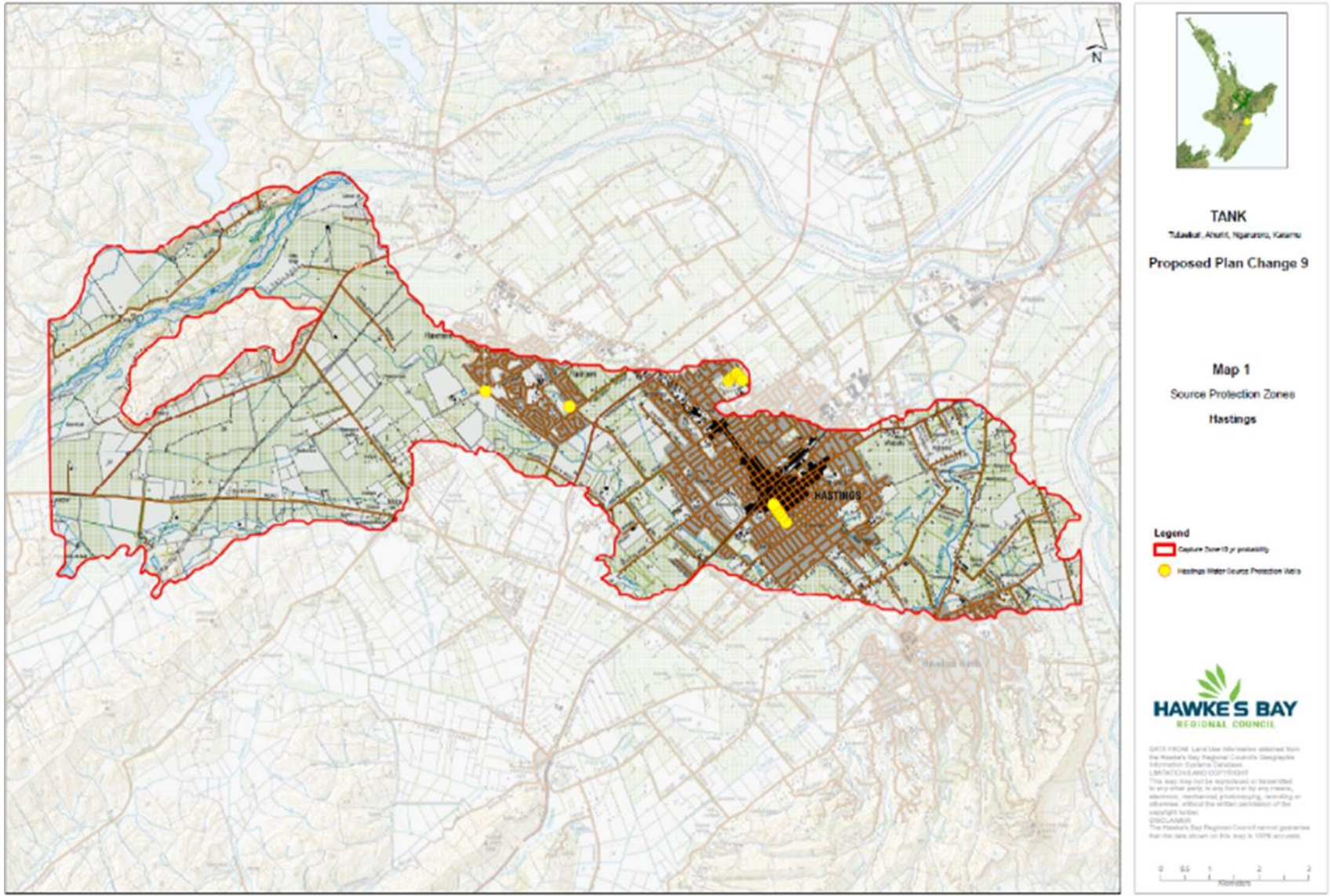
HAWKE'S BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Drinking water supply source protection

- New objectives, policies and rules
  - Rules restrict some activities
  - Source Protection Zones using specified methods
    - Provisional approach
    - Ability to amend rules through consent processes
  - Small scale drinking water supplies also defined using specified methods

HAWKES BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Hastings District Council SPZ



HAWKE'S BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Napier SPZ

HAWKES BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Water Allocation

1. Essential needs of people

- Permitted Activities
  - Domestic use/stock etc
  - Small scale use

Rules;

Existing uses to continue 20 m^3/day
New uses reduced to 5m^3/day (5,000 l/day)

Modelled daily household water use;

Per person 300 l/day
Per 4 person household 1,200 l/day

Takes for essential needs of people must not result in a stream flow being stopped






Growth till 2045

- Constrained by existing consents and allocation limits

Water supply management

- Reticulation management
- Best practice leakage reduction
- Service and supply standards

Water demand management

- Efficient water use (council and domestic)
- Reporting
- Pricing
- Water metering

Other solutions

- Storage – on-site (domestic and rural solutions)
- Community storage schemes
- Site to site transfers
- Reticulation
- Land purchase

Long term supply/demand strategy (RWA)

- Climate change
- Urban growth models
- Land use/technology change
- Better information

Outstanding Waterbodies Plan Change

HAWKE'S BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Outstanding waterbodies (PC7)

- Wetlands and lakes;
  - Kaweka Lakes
  - Lake Poukawa and Pekepeka Swamp
  - Ngamatea East Swamp
- Ngaruroro River
- Tūtaekurī River
- Heretaunga Aquifer

HAWKES BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Lakes and Wetlands

Plan Change 7

- Kaweka Lakes
  - Ecology, natural character
    - Threatened plant species incl submerged plants
    - Koaro population
- Lake Poukawa/Pekapeka
  - Cultural /spiritual
    - Threatened plant and bird species
    - Eel fishery
- Ngamatea East Swamp
  - Ecology , natural character
    - Threatened plant species
- Tūtaekurī River
  - Cultural and spiritual, ecology
    - Mahinga kai, MCI in upper reaches

Plan Change 9

- Wetlands and lakes protected
  - RRMP rules
  - new allocation limits
  - objectives for wetlands/lakes
    - Indigenous spp
    - Connected waterways
    - Hydrological functioning
    - Social and cultural activities, mahinga kai,
  - Increase in wetland area

HAWKE'S BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Ngaruroro River

Plan Change 7

- Cultural/spiritual
- Ecology
  - Bird habitat in braided reaches
  - High MCI in upper reaches
  - Fisheries (native and trout)
- Recreation
  - Jet boating in braided reaches
  - Whitewater rafting in upper reaches
  - Trout fishing
- Mahinga kai
- Natural character/Landscape
  - Natural and scenic upper reaches
- Geology

Plan Change 9

- New objectives
  - Range of values provided for,
  - Protection of Ngaruroro mainstem
  - Minimum flow and allocation limits
    - Over-allocation addressed
  - Damming prohibition
  - Water quality objectives

HAWKES BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Tūtaekurī River

Plan Change 7

- Cultural/spiritual
- Ecology
  - High MCI in upper reaches
- Mahinga kai

Plan Change 9

- New objectives
  - Range of values provided for,
  - Protection of mainstem
  - Minimum flow and allocation limits
    - Over-allocation addressed
  - Damming prohibition
  - Water quality objectives

HAWKE'S BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Heretaunga Aquifer

Plan Change 7

- Cultural and Spiritual Values
  - Extensive waterbody with many surface features

Plan Change 9

Heretaunga Plains Water Management Unit

- New objectives
  - Range of values provided for,
  - connection to surface waters
- Interconnectivity managed
  - Minimum flows
  - Trigger flows for enhancement
- Allocation limit established
  - Over-allocation addressed
- Riparian vegetation improved
- Water quality improved

HAWKE'S BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI