



Takaka Freshwater Management

Takaka FLAG work to date

20 October 2016

Meeting format

- What do you want to discuss most?:
 - **FLAG outputs** – brief overview of interim decisions – values etc
 - **Allocation regimes** – what water is available at what security
 - Security of supply tables
 - **Water quality management methods** – how could these be implemented?
 - **Good Management Practice** – what should this cover, how can it be included in a regulatory framework?
 - **Where to from here** – process timing and opportunities for input

Disclaimer:

- The decisions in this presentation are **draft only**
- The FLAG will be reviewing all decisions as part of the draft plan change review
- The interim decisions do not represent full FLAG consensus
- Costs and benefits yet to be fully identified or scoped

National Policy Statement: Freshwater Management

- Council must implement NPS-FM by 2025
 - Safeguard: life-supporting capacity, ecosystems, processes, indigenous species
 - Protect: significant values of wetlands and outstanding water bodies
 - Avoid or address: over-allocation of water quantity and quality
 - 'Over-allocated' if not meeting the freshwater objectives
 - Integrated and sustainable management

- National Objectives Framework (Policies CA1&2)

- Process to set freshwater objectives
- 13 national values, 2 compulsory:
 - Ecosystem health
 - Human health for recreation
- Identifies some key attributes for values
 - National 'bottom lines'



National Objectives Framework process: (Policies CA1&2)

- ① Identify freshwater management units (**FMU**)
- ② Identify **values** for each FMU
 - considering national values, including compulsory ones
 - any other values considering local and regional circumstances
- ③ Identifying relevant **attributes** for each value eg:
 - algae, bacteria and water clarity for **swimming**
 - dissolved oxygen, flow, etc for **ecosystem health**
- ④ Assigning an **attribute state** for the attributes
 - at or above the minimum acceptable state (no decline in quality)
- ⑤ Formulating **freshwater objectives**
 - numeric and narrative
 - adopting the most stringent for each attribute across all the values

Set limits/flow/levels to achieve these objectives (Policies A1 and B1)

FLAG interim outputs

1. Freshwater Management Unit (FMU) **extent**
2. **Values and uses** of water & management objectives
3. Key **attributes** to enable values and objectives

4. **Interim water allocation** regimes
5. **Interim water quality** management approaches

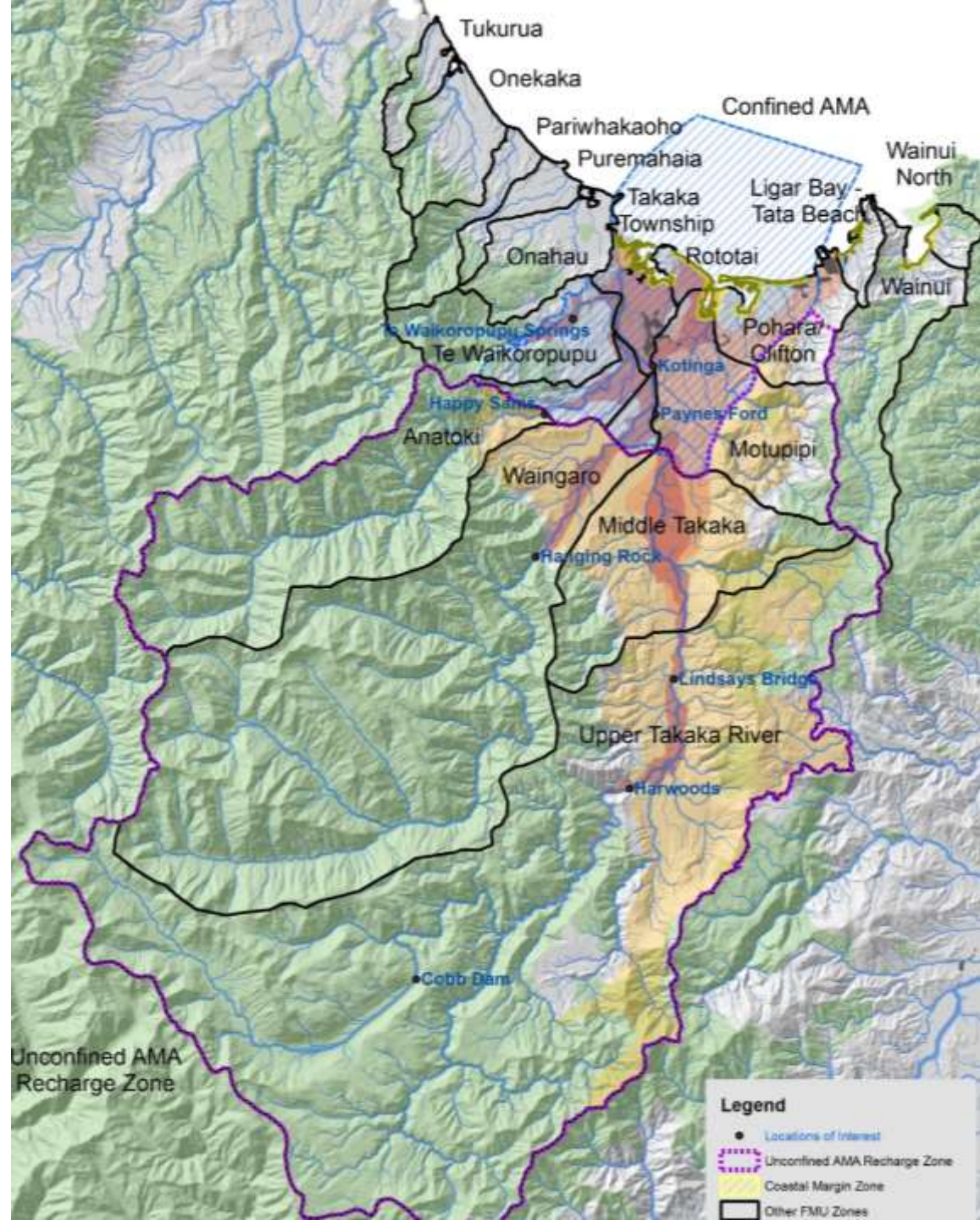
Still to come (as recommendations to Council):

6. Draft plan change (policy and rules)
7. Implementation plan (other methods)
8. Evaluation of costs/benefits (Sec 32)

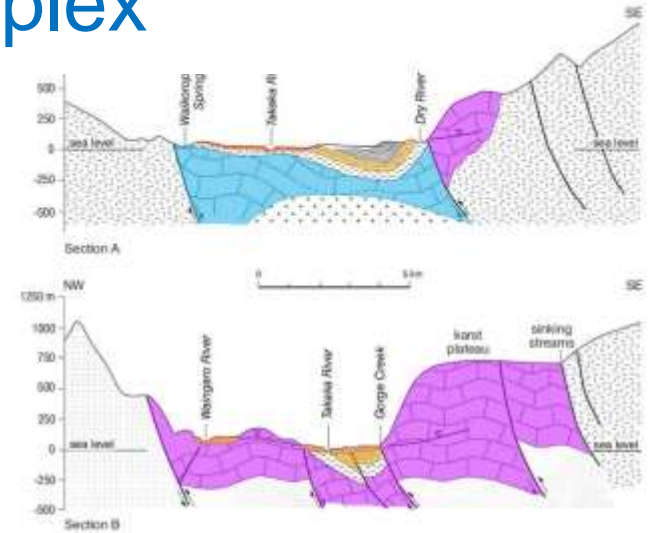
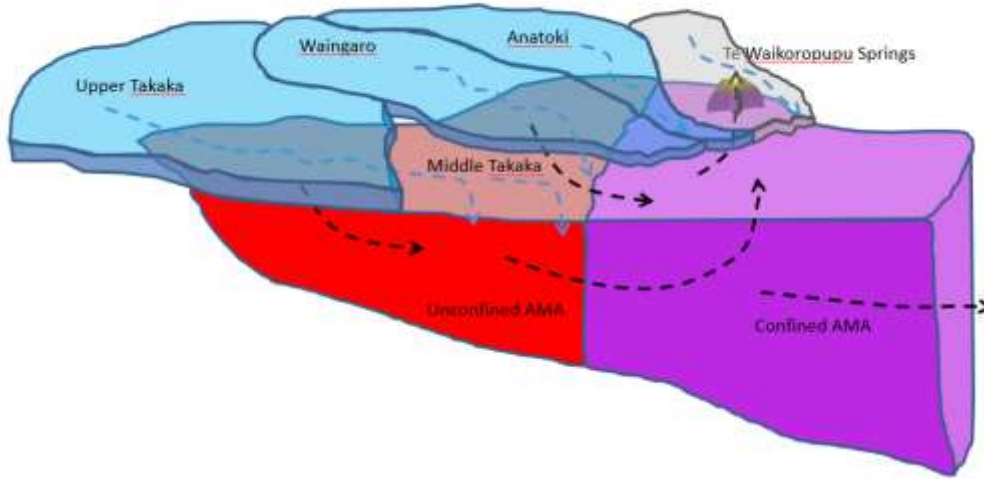
1. Takaka Freshwater Management Unit (FMU) – extent

Extent considered:

- Surface catchments
- Groundwater-surface water linkages
- Community of interest



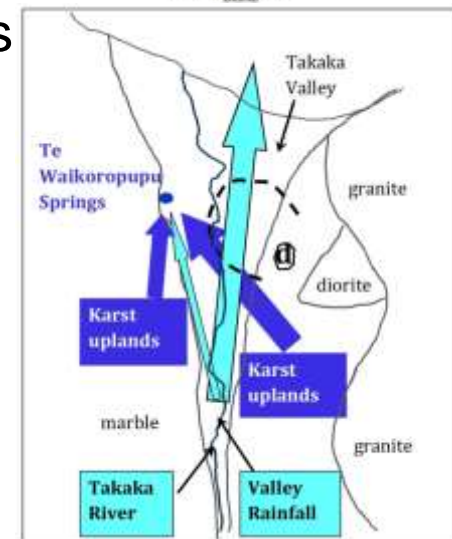
Water resources are VERY complex



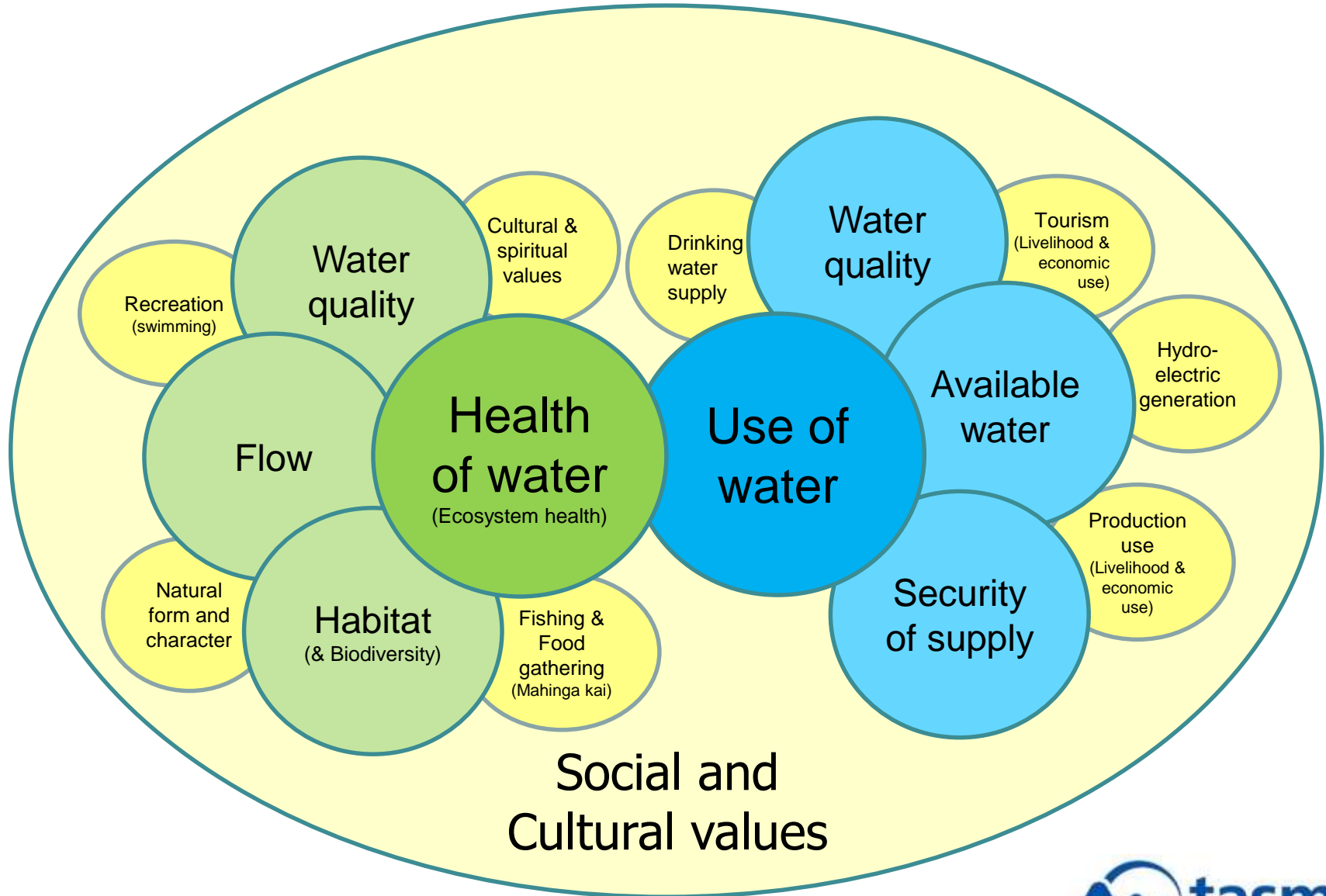
ROCK TYPE AND AGE



- Rivers losing and gaining flow from groundwater
- Large and small springs, and open and closed sinkholes
- Unconfined and confined parts of aquifer
- Flows between different aquifers at different locations
- Influence of the Cobb dam releases



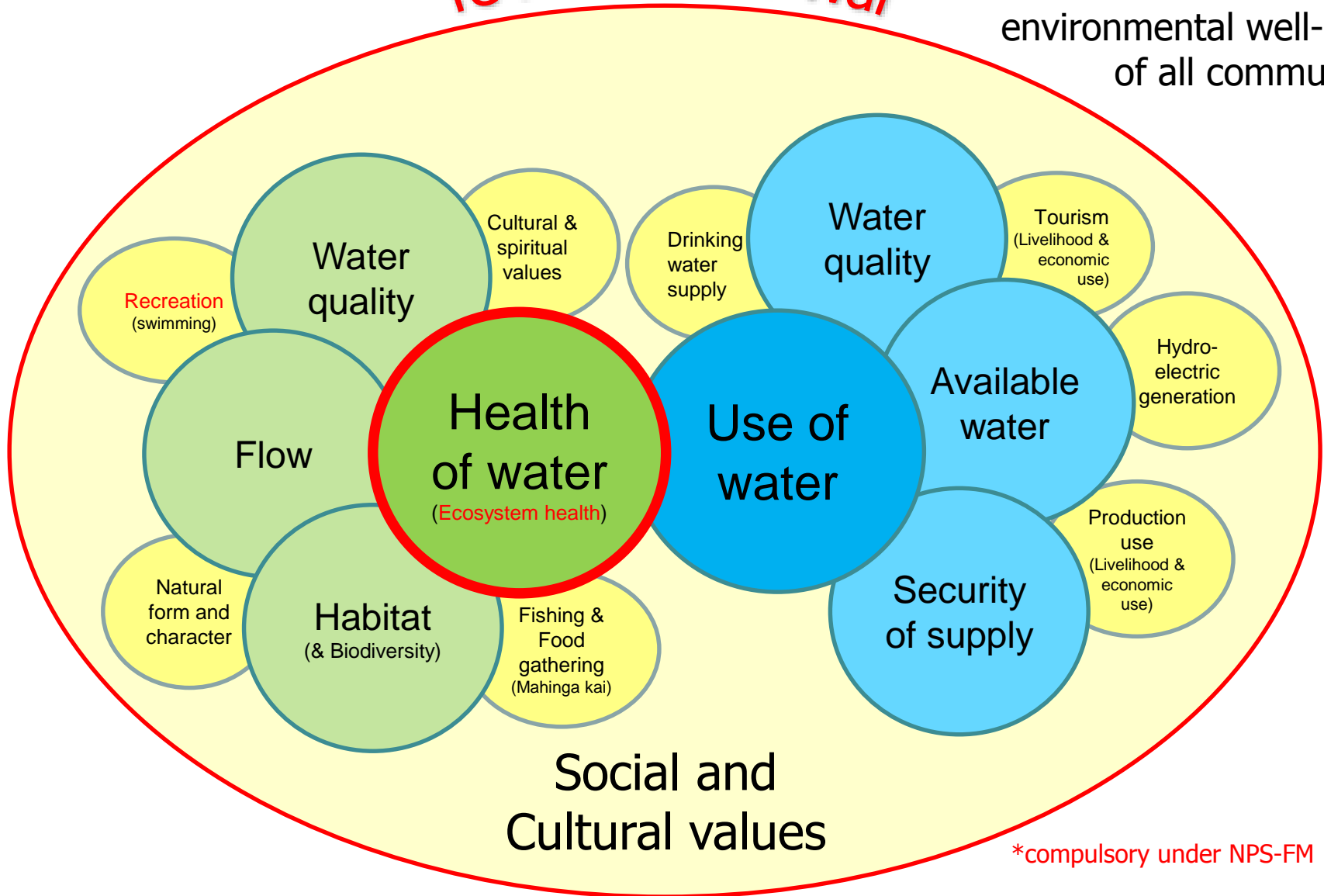
2. FLAG values and uses of water



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Water health is integral to the social, cultural, economic and environmental well-being of all communities

Te Mana o Te Wai



*compulsory under NPS-FM

National value of Transport/Tauranga waka not represented

3. Key attributes across all values

- Mauri
- Water clarity
- Fine sediment
- Riparian and aquatic habitat (incl. shading and habitat)
- Dissolved oxygen and dissolved organic carbon
- Nutrients- nitrates and phosphorus
- Nuisance aquatic plants (eg overgrowth of weeds, algal blooms, etc)
- *E.coli* (as an indicator of disease causing organisms)
- River and spring flow
- Groundwater level
- Security of supply
- Other economic indicator – yet to be defined

Summary of FLAG Interim decisions to date:

- Allocation of water (water quantity)
- Water health (quality and habitat)

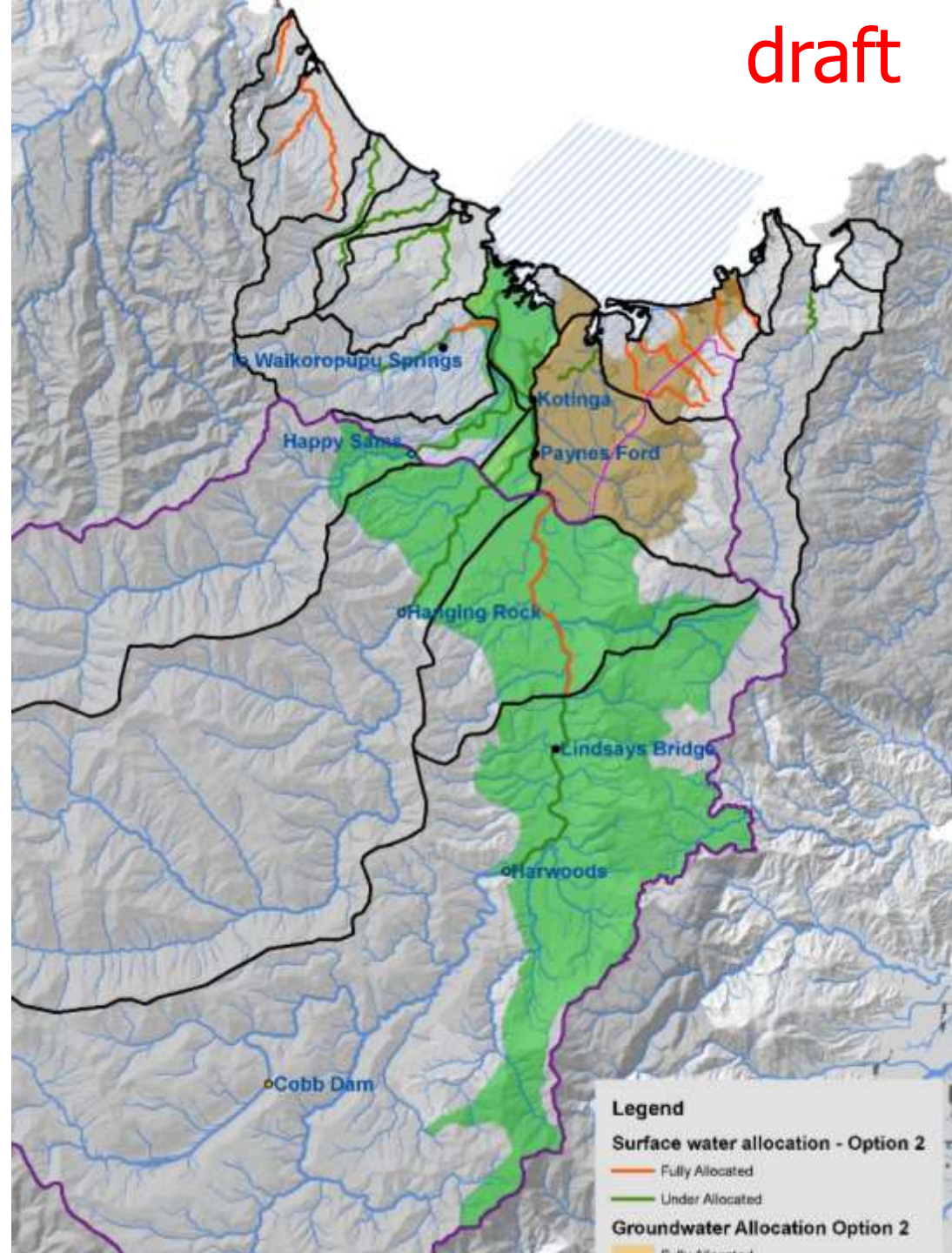


Water allocation:

- Initial goal: protecting instream ecological values during dry periods
- Identifying water for use and reviewing security of supply
- Regimes for each zone/water body:
 - Setting **minimum flows** to be protected (using ecological expert advice)
 - Setting **allocation limits** (using ecological and water scientist advice)
 - Setting **cease take triggers** – so takes won't affect minimum flows
 - Only apply to consented, consumptive takes that affect river low flows
 - Do not apply to domestic use, stock water or community water supplies
 - Sec 329 water shortage directions can still be used if necessary
 - Rivers may still drop lower than minimum flows naturally during drought
- Review **security of supply** – options to improve:
 - Reduce allocation limits (users get less water, but don't get cut off as often)
 - Promote use of storage
- **Still questions/concerns to be resolved**

Interim allocation decisions summary:

- Groundwater (aquifers) shown as polygons
- Rivers reaches shown as lines
- Additional water potentially available in **green** areas:
 - subject to physical access
 - irrigable area not shown
 - volumes not shown
- No further water in **orange** areas (at full allocation)
- Tukurua:
 - Potential 'over-allocation'
 - Community water supply
 - Potential to resolve at renewal



Water health (quality and habitat)

FLAG discussions on:

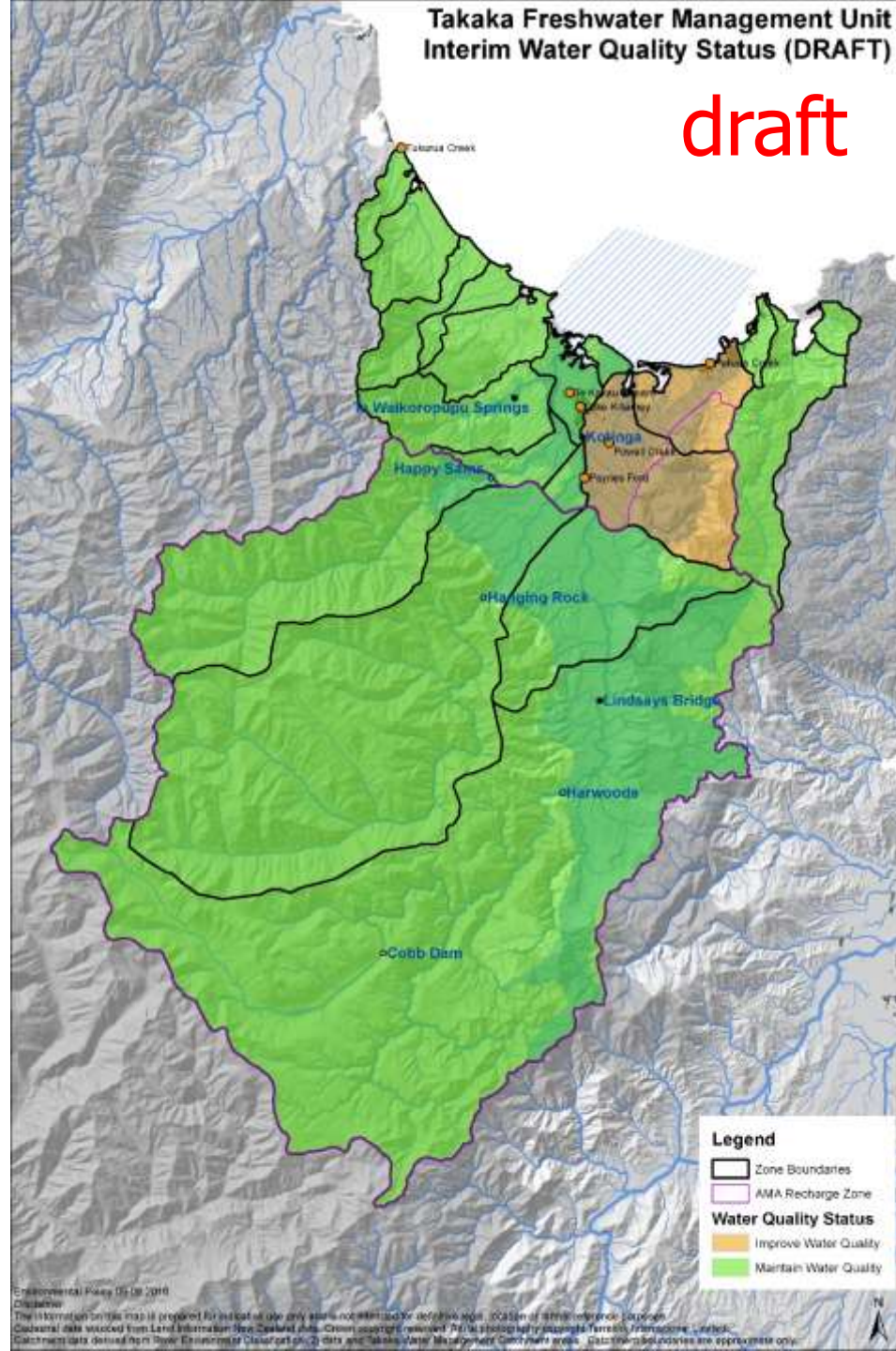
- Zones with water quality **issues to address**:
- Zones with **good or excellent quality** to be protected
- **Future potential risks** to be managed



Water Quality Status

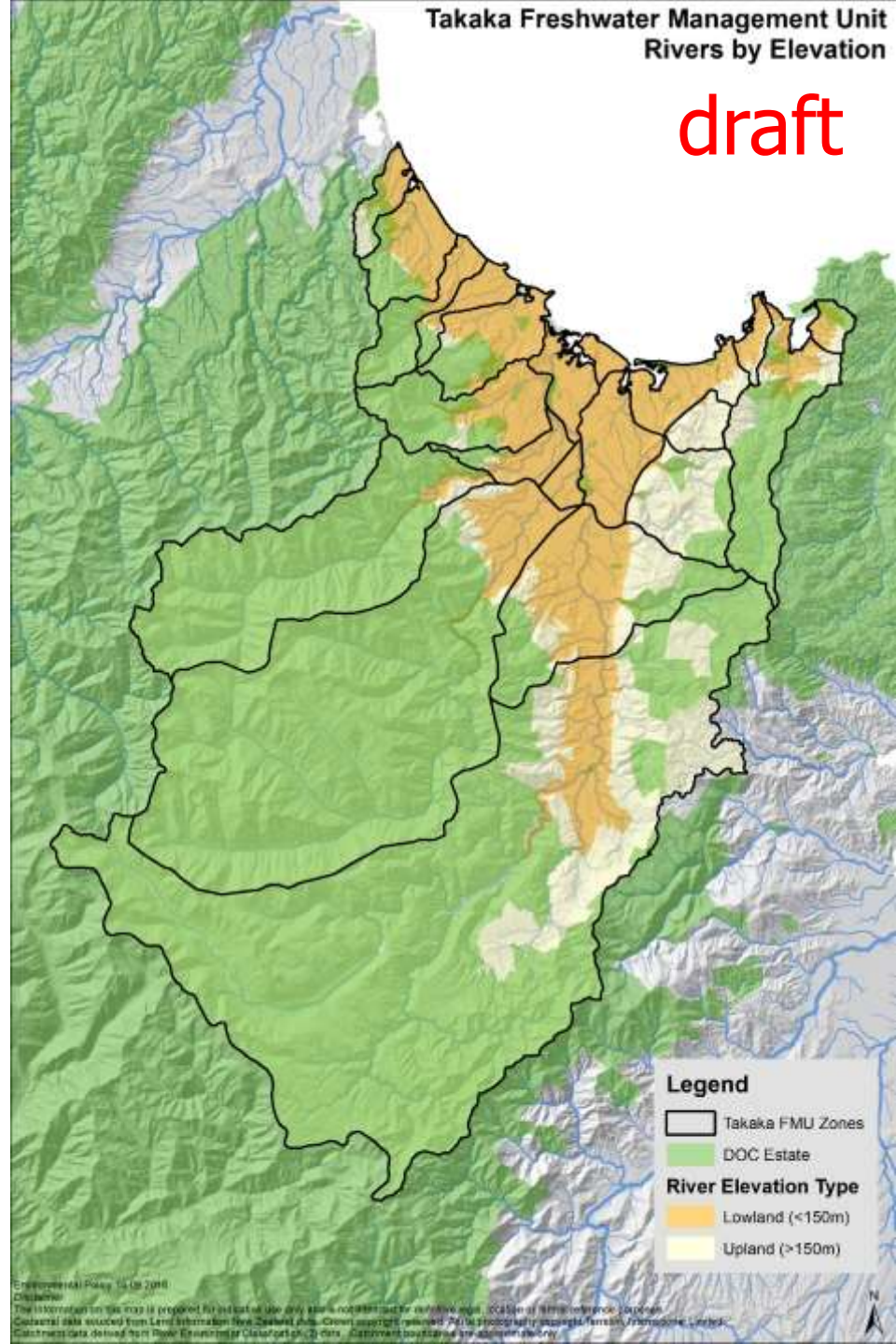
- Green areas in a maintain state, orange in an improve state
- Generally water quality is good and FLAG want to keep it that way
 - Especially at Te Waikoropupu
- **Motupipi and Pohara-Clifton Zones:**
 - Takaka Limestone Aquifer - potentially elevated nitrate
- **Sites/reaches with concerns:**
 - Te Kakau Stream
 - Lake Killarney
 - Motupipi river and tributaries
 - Swimming holes (eg Payne's Ford)
 - Pohara and Tukurua Creek/Beach
- **General FMU wide concerns:**
 - Risks from sediment, *E.coli*, nutrients
 - Loss of riparian cover/habitat – esp. lowland streams, close to coast

draft



Water habitats

- Loss of riparian cover and aquatic habitat:
 - Focus on **lowland streams**:
 - under 150m elevation (orange on map)
 - close to coast - have high fish diversity
 - Smaller streams benefit most from riparian shading
- **Stream restoration and replanting is already occurring**
 - Look at how Council can further support this in implementation plan
 - What are the barriers or challenges?
 - How can it be funded?
 - Who is doing what already?



Water health management methods:

- Requirement for **good management practices**
 - All uses (who defines?), all zones
 - Focus: sediment, nutrients, effluent/bacteria, riparian areas, water use
 - Stock exclusion (dairy and beef cattle, deer, pigs)
- **Investigations** into sources of contaminants
 - eg. E.coli levels – farming? onsite wastewater? or natural populations?
- Ongoing **monitoring** & additional monitoring - trends
 - Adaptive management (set triggers > monitor > if breached > action)
- **Education and promotion** of projects to improve water health
 - eg. stream replanting and restoration

Remaining work:

- Ecological value and Science Panel reports to be finalized
- Iwi and stakeholder input
- Public feedback
- Set Freshwater Objectives (step 4 and 5 in NOF)
- Develop draft plan change and implementation plan
 - Key challenge is GMP within regulatory framework
- Sec 32 analysis of methods: costs and benefit, implications
 - Impact of draft plan change compared to current situation
 - Scoping and costing of non-regulatory methods
- Make recommendation to Council
- Notification and Sch. 1 plan change process

Opportunities for input:

- At any time **before public notification** (now to early 2017)
 - contact FLAG coordinator [Lisa McGlinchey](#)
 - on **direction/methods** prior to plan change drafting
 - After plan change drafting – on **framework, policy, rules**
- **After public notification** by Council
 - Submission during formal plan change process

